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NORTH DAKOTA RESEARCH REPORT

Survey of Wild Oats and Other Weeds in North Dakota 1978 and 1979

Survey supported by North Central Regional and
Federal Pesticide Impact Assessment Funds.

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Introduction

This survey of wild oats and other weeds was conducted to obtain information needed in order to determine the benefits from diallate and triallate for wild oats control. Diallate is being reviewed by EPA as part of the Rebuttable Presumption Against Registration (RPAR) process and triallate is under consideration for RPAR. Pesticides are considered for RPAR review when there is information indicating possible health or environmental hazards. Reregistration of RPAR pesticides is dependent upon rebuttal of the hazards and/or a favorable benefit-risk analysis. Benefits can be actual or potential benefits so the benefits from herbicides for wild oats control is dependent upon the extent of the wild oats problem as well as present usage of herbicides for wild oats control.

This weed survey will not only provide information on infestations for present herbicide benefit analysis, but will also serve as a basis for determining weed population shifts in the future. Weed surveys give valuable information on the location and extent of infestation by various species which is important to development of weed prevention and control systems.

Methods

The weed survey was conducted during July and August of 1978 and 1979. The objective was to survey approximately 1,400 fields each year. The total crop land in North Dakota was divided by 1,400 giving the acres of crop land each sample would represent. The number of fields to be surveyed in a county was obtained by dividing the crop land acres by the acres each sample represented (11,000). A minimum was established of five samples per county in 1978 and 10 per county in 1979.

Foster and Stark counties were surveyed more intensively than the other counties in 1979. Fields were surveyed on 2 mile grids over these counties. However, a hail storm prevented completion of the survey in Foster County. The complete survey of these counties has been summarized separately (In press).

The state summaries in this report only include one sample per 11,000 acres of cropland from Foster and Stark counties even though more samples were taken. The county summaries for Foster and Stark include all samples.

The individual townships in a county were assigned numbers consecutively starting from northwest to northeast. A list of random numbers was used to select the townships to be sampled. Where the desired number of samples was greater than the number of townships or where the same township number appeared in the random numbers more than once, then more than one field was selected in a township.

Survey sites within a township were selected by beginning at Section 15 and scanning adjoining sections in a clockwise manner until the desired number of acceptable fields were located in 1978. In 1979, the first survey site was located by beginning scanning at section 8. Scanning was at section 8 and 28 for townships where more than one sample was required. An acceptable field had to be at least 40 acres, be planted to wheat, barley, oats or flax, and be accessible by road. In 1979 sunflower was added as an acceptable crop. Townships and fields which were non-representative because of towns, rivers, etc., were not surveyed. The site selection method tended to concentrate the samples toward the center of the townships. The site selection procedure was used so the surveyors did not need to randomize section selection and to reduce travel. Initial field selection was from maps in the county ASC office which indicated the crops present and the farm operator. The farm operators were contacted for approval to enter their fields for the survey counts.

Weedy plants were counted in 0.25 square meter quadrats at 20 locations in the selected field. The 0.25 square meter plant count in sunflower was in a 25 cm wide band over the sunflower row. The first count was 100 steps from a field corner and 100 steps into the field. The other 19 samples were taken every 20 steps in an "M" pattern, with five samples on each line of the "M." Sheets for recording data were provided which listed the most common weeds and left blank space for other weeds. Weeds unidentifiable by the surveyor were listed as unknowns and a weed specimen was sent for identification to the NDSU diagnostic laboratory. After identification, the name of the weed was entered on the data sheet.

A maximum of 99 weeds per 0.25 square meter for an individual weed species was counted and recorded in order to save surveying time. The number of quadrats with no weeds was recorded in a separate line on the data sheets.

The field survey began July 13 in 1978 and July 5 in 1979, after the wild oats panicles had emerged, and con-

tinued until the specified number of samples were obtained for each county. The randomly selected field was not surveyable on occasion because the field had been harvested, was in fallow or inadequate in size. Then the surveyors substituted the nearest field which met the requirements of the survey. Wells County in 1978 was not surveyed because a death in the family of the assigned surveyor delayed the survey until harvest was nearly complete. No county summary is given for Wells County and the values used in the maps are estimates based upon weed counts from nearby townships in the adjacent counties.

The state was divided into ten areas and one surveyor assigned each area. Surveyors were given an orientation and training session which covered objectives, procedures and weed identification. The number of fields sampled for the various crops in each county is presented in tables 1 and 2 for 1978 and 1979, respectively.

In 1978 a questionnaire was sent to the operator of each surveyed field in order to determine past cropping practices and herbicide treatments. The returns of the questionnaire were only about 30%. Thus, in 1979 the surveyors interviewed the farm operators at the time of obtaining permission of entry. Further, in 1979 fields were selected randomly, located by on-site observations, and then the operator was located for the interview.

Wild buckwheat and field bindweed, and yellow foxtail and green foxtail were not counted separately in Sheridan, Wells, Eddy, Foster, Burleigh, Kidder, Stutsman, Logan, LaMoure, McIntosh and Dickey counties in 1978. Thus, the values presented for wild buckwheat include field bindweed and no values are presented for field bindweed. Also, the values for green foxtail include both green and yellow foxtail in those counties. Further, quackgrass was not included for these counties in 1978 as the assigned surveyors were not familiar with quackgrass. In 1979, all weeds were identified separately. Wild sunflower and volunteer sunflower were combined and called sunflower in both 1978 and 1979.

This survey was patterned after the ones conducted in Canada by Dr. Gordon Thomas, Agriculture Canada, Research Station, Regina, Saskatchewan.

Definition of Terms Used in Report

County — a political subdivision of the state. North Dakota has 53 counties. Wells County was not surveyed in 1978 and the information was estimates based on adjacent counties. All counties were surveyed in 1979.

Weed frequency — the percentage of the fields surveyed which contained the weed in one or more of the 20 0.25 square meter sample quadrats. "Weed free" in the Weed Species column indicates that at least one of the sample quadrats within a field had no weeds.

Field uniformity (All) — The percentage of the 0.25 square meter sample quadrats which contained the specific weed based on all sampled fields.

Field uniformity (INF) — The percentage of the 0.25 square meter sample quadrats infested with the specific weed based only on fields where the weed occurred in one or more of the 20 sample quadrats.

Weed density (All) — The average weed population or density per square meter based upon all sample quadrats in all sampled fields.

Weed density (INF) — The average weed population or density per square meter based only on infested fields, i.e., where the weed occurred in one or more of the sample quadrats.

Density range — The lowest and highest density in plants per square meter recorded for a specific weed within a county or the state. The maximum possible was 396 as counts were not made beyond 99 per 0.25 meter square sampling area.

Weed index — A calculated value which gives an indication of the abundance of a particular weed and can be used to make comparisons between years and among crops. The formula used was:

$$\text{weed index} = \frac{(\text{weed frequency}) + (3 \times \text{field uniformity}) + (7 \times \text{weed density})}{3}$$

Weed frequency, field uniformity, in all fields and weed density in all fields were averaged over all weeds in 1978. The ratio of weed frequency:field uniformity:weed density was 1:3:7. Thus these were the numbers used for multiplication so that all three factors would have an approximately equal effect on weed index.

Weed index does not necessarily represent the losses in crop production caused by a weed because weeds vary greatly in competitive ability.

Results and Discussion

This report contains information on the infestations of weeds in crops for the entire state of North Dakota as well as for individual counties. Maps of the state indicate weed frequency and weed density by county for the major weeds in 1978 and 1979.

The weeds were ranked by weed index in the various tables. The ten most important weeds in 1978 ranked by the weed index and averaged over all crops and the whole state were green foxtail, wild oats, wild buckwheat, redroot pigweed, common lambsquarters, kochia, yellow foxtail, Russian thistle, wild mustard and perennial sowthistle (Table 3). In 1979, the ranking was green foxtail, wild oats, wild buckwheat, redroot pigweed, yellow foxtail, wild mustard, common lambsquarters, Russian thistle, kochia and field bindweed (Table 4). Canada thistle was the twelfth ranked weed in 1978 and eleventh in 1979. Perennial sowthistle ranked seventeenth in 1979 and field bindweed ranked eleventh in 1978.

Green foxtail

Green foxtail was the most abundant weed throughout North Dakota in both 1978 and 1979 with 94% of the surveyed fields being infested. The average green foxtail density in infested fields was 47.5 plants per square meter in 1978 and 67.0 in 1979. The average density would have been larger but counts were limited to 99 plants per 0.25 square meter quadrat. The weed index value was 216 in 1978 and 256 in 1979 indicating that green foxtail was a more important problem in 1979 than 1978. Crop seeding was late in both years, which may have accounted for the high green foxtail infestations. Green foxtail occurred at a high frequency in the surveyed fields over North Dakota except in the southwest. The highest densities were in the east and northeast in 1978 and uniformly high throughout North Dakota with the highest densities in the east central in 1979 (Figures 1 to 4).

These results would indicate that green foxtail is a major weed problem in North Dakota. The competition from green foxtail with crops is not as intensive as from weeds like wild oats or wild mustard. However, the high green foxtail densities and frequency would indicate that green foxtail causes large losses to the state.

Waldron (9) reported in 1903 that foxtail occurred throughout North Dakota where crops were grown and that yellow foxtail was more abundant than green foxtail in North Dakota. In the present surveys, yellow foxtail occurred on 33% or less of the surveyed fields and green foxtail on 94% of the fields. Thus, a shift from yellow to green foxtail occurred over the years.

Wild oats

Wild oats occurred in 66% of the surveyed fields in 1978 and 60% in 1979, with an average density in the infested fields of 9 and 7 plants per square meter, respectively. The weed index value for wild oats was 69 in 1978 and 55 in 1979. Wild oats emergence and growth is greater with cool than warm conditions while a warm environment is more favorable for foxtail. Thus, the higher green foxtail and lower wild oats infestation in 1979 than 1978 probably was related to late crop seeding in 1979. Wild oats occurred throughout North Dakota and the wild oats frequency and density within the counties varied between 1978 and 1979 (Figures 5 to 8). The wild oats frequency was generally highest in the northern and eastern counties. However, frequency was higher in western than eastern counties in 1979. Wild oats densities did not vary greatly among counties. The generally low wild oats densities probably reflects the late crop seeding and the use of herbicides for wild oats control.

1978 and 1979 were both years with relatively late spring crop seeding which caused lower than average wild oats infestations. A weed survey of Cass County conducted in 1980 by North Dakota Department of Agriculture (7) indicated a wild oats weed frequency of 63.3%, an average infestation of 43.5 plants per square meter in the infested fields, and a wild oats weed index of 131.2. In the 1978 and 1979 surveys Cass County wild oats field frequency was 82 and 59%, plants per square meter in infested fields was 1.2 and 4.4, and weed index was 47.6 and 41.6, respectively. Thus, based on the Cass County surveys wild oats infestations vary widely with years and the results from the 1978 and 1979 surveys represent years of lower than average wild oats infestations. The wild oats density was ten or more times higher in 1980 than in 1979 or 1978.

Wild buckwheat

Wild buckwheat had a similar weed frequency to wild oats, but densities were lower for wild buckwheat than wild oats in both 1978 and 1979. Wild buckwheat occurred in 56% of the fields in 1978 and 65% in 1979 with densities of 7 and 4 plants per square meter, respectively. Wild buckwheat occurred throughout the state, with trends for more wild buckwheat in the southwest and east in 1979 and more in the central part in 1978 (Figures 9 to 12). The occurrence of wild buckwheat probably relates to the extensive usage of 2,4-D and MCPA, which do not adequately control wild buckwheat. Wild buckwheat has

been shown to be less competitive with cereal grains than wild oats (6). Thus, even though infestations were similar to those of wild oats, the economic losses from wild buckwheat would be less. Wild buckwheat, in addition to yield losses, causes harvesting difficulties as the plant vines often cause crop lodging. Further, green, moist wild buckwheat growth in grain swaths delays swath drying and may increase moisture in the harvested grain.

Redroot pigweed

Redroot pigweed occurred in 45% of the surveyed fields in 1978 and 63% in 1979. Density of redroot pigweed was 4.3 and 5.8 plants per square meter in 1978 and 1979, respectively. Infestations occurred throughout North Dakota, with a trend for more frequent and dense infestation in the southwest than in the rest of the state (Figures 13 to 16). However, infestations in the southeast and southwest were similar in 1979. Warm temperatures are favorable for redroot pigweed emergence and establishment so the late seeding in 1979 may help explain the high infestations of redroot pigweed. Further, the redroot pigweed may have been plants which survived MCPA or 2,4-D treatment. Redroot pigweed is moderately tolerant to MCPA and to 2,4-D at low rates. Information is not available on competition from redroot pigweed in wheat so the economic importance of redroot pigweed cannot be estimated. Redroot pigweed was reported to cause severe losses in sugarbeets in certain years (2) and smooth pigweed caused severe losses in soybeans (5).

Common lambsquarters

Common lambsquarters occurred in 26% of the fields surveyed in 1978 and 44% in 1979. Common lambsquarters ranked fifth according to the weed index in 1978, and seventh in 1979, even though the occurrence was higher in 1979 than 1978. The weed frequency of wild mustard and yellow foxtail increased more from 1978 to 1979 than common lambsquarters and this caused the change in ranking. Densities in the infested fields were 4.2 plants per square meter in 1978 and 2.8 in 1979. The highest occurrence and density of common lambsquarters in North Dakota was in the north central in 1978 and the south central in 1979 (Figures 17 to 20).

Common lambsquarters is usually controlled by 2,4-D and MCPA. The relatively high infestation of common lambsquarters may have been plants which emerged after or escaped treatment.

Kochia

Kochia was the sixth ranked weed in 1978 and ninth in 1979, with occurrence in 25% and 27% of the fields in the two years, respectively. Densities in the infested fields were 3.5 plants per square meter in 1978 and 2.3 in 1979. Kochia occurred throughout the state, with isolated counties having higher infestation, density and frequency than others (Figures 21 to 24). Kochia occurred in approximately 25% of the fields, which indicates an important loss in crop production since kochia is considered a severely competitive weed. Kochia is moderately tolerant to 2,4-D and MCPA, especially with dry conditions.

Yellow foxtail

Yellow foxtail occurred in 13% of the fields in 1978 and 33% in 1979. Green and yellow foxtail are similar and could be combined when considering competitive effects. However, the two species often have responded differently to herbicides. Distribution maps were not prepared

for yellow foxtail, but the data for county infestation indicate that yellow foxtail occurred throughout the state.

Russian thistle

Russian thistle was the eighth ranked weed in both 1978 and 1979, with 22 and 31% of the surveyed fields infested, respectively. The average density on the infested field was 5.2 plants per square meter in 1978 and 4.2 in 1979. Russian thistle was not found in 14 counties in 1978 (Figure 25). However, Russian thistle was found in all counties but Barnes in 1979 (Figure 26). Russian thistle infestations are known to vary from year to year because of environmental conditions. Russian thistle emerges at various times during the growing season and is tolerant to MCPA and moderately tolerant to 2,4-D. These characteristics could account for the infestations at the time of this survey prior to harvest. The Russian thistle which emerges late in the season may cause only slight competition and crop yield losses.

Wild mustard

Wild mustard occurred in 14% of the sampled fields in 1978 and 48% in 1979. Wild mustard occurred in all counties in 1979, with the highest infestation in the southeast and south central part of North Dakota (Figures 27 to 30). Wild mustard has been reported equally as competitive as wild oats and has been a major weed for many years. Wild mustard is effectively controlled by 2,4-D and MCPA, which has reduced its importance in recent years. The higher weed frequency in 1979 than 1978 may relate to crop seeding dates, alternate crops in the rotation and environment. The wild mustard density in infested fields was 3.2 plants per square meter in 1978 and 3.5 in 1979.

Perennial sowthistle, field bindweed and Canada thistle

Perennial sowthistle occurred in 12 and 10%, field bindweed in 10 and 18%, and Canada thistle in 12 and 21% of the surveyed fields in 1978 and 1979, respectively. The density of these three perennial weeds in the infested fields varied from 1.9 to 7.3 plants per square meter. Perennial sowthistle occurred uniformly throughout the northeast three-fourths of the state (Figures 31 and 32). Field bindweed occurred throughout the state except for the northeast part and infestations were highest in the southwest and central North Dakota (Figures 33 and 34). Canada thistle occurred in the northeast three-fourths of North Dakota with highest infestations in the east and north (Figures 35 and 36).

These perennial weeds are known to be very competitive with crops. The occurrence of each of these weeds on 10% or more of the sampled fields indicates an important obstacle to maximizing crop production in North Dakota. Canada thistle and perennial sowthistle usually occur in localized areas in a field. The sampling procedure could have missed detecting infestations in many fields. However, the random sampling procedure indicates an average infestation over the entire area independent of localized infestations. The potential further spread of these perennial weeds is a major concern since present herbicides and cultural control methods in crops are not completely effective.

Waldron (10) in 1904 reported that Canada thistle occurred at about 19 locations in North Dakota, mainly in the northeast. Waldron also indicated that perennial sowthistle occurred in the same area as Canada thistle. In the present surveys, Canada thistle occurred in 12 and 21% of the fields in 1978 and 1979, respectively, and perennial sowthistle occurred in 12 and 10% of the fields in 1978 and 1979, respectively, throughout most of North Dakota.

Volunteer and wild sunflower

Volunteer and wild sunflower were considered together because identification is difficult in the vegetative stage. Sunflower occurred in 12% of the fields in both 1978 and 1979. The survey included sunflower fields in 1979 and volunteer or wild sunflower were not counted in these fields. Thus, the per cent sunflower infestations averaged over all crops was biased downward in 1979 and the infestations in the cereal grains and flax were actually higher in 1979 than 1978. Sunflower acreage has been increasing and fields with volunteer sunflower also can be expected to increase. Sunflower is controlled by 2,4-D and MCPA and the infestation may represent untreated plants, stunted plants surviving treatment, or late emerging sunflower. Areas infested with sunflower varied each year with a general infestation in 1979 and localized infestation in 1978 (Figures 37 and 38).

Nightflowering Catchfly

Nightflowering catchfly was 14th ranked weed in 1978 and 19th in 1979. The weed occurred in 7% of the fields in both years. Nightflowering catchfly occurred mainly in the north, east, and far west in North Dakota (Figures 39 and 40). Nightflowering catchfly is tolerant to most presently used postemergence herbicides. Thus, even though infestations are presently limited, the potential exists for future spread of the infestations with present agronomic practices.

Other weeds

A total of 61 different weed species were detected in the crop fields surveyed in 1978 and 74 in 1979. Many of these weeds occurred only occasionally and/or under unusual situations and may not be a potential problem. Some weeds not discussed above which occurred in 2% or more of the surveyed fields in either 1978 or 1979 were prostrate pigweed, prostrate spurge, wild rose, quackgrass, field pennycress, common cocklebur, ragweed, common purslane, flixweed, dwarf mallow, common milkweed, barnyardgrass, shepherdspurge, greenflowering pepperweed, marshelder, yellow woodsorrel, smartweed, skeletonweed and prickly lettuce.

The major weeds were similar in the various crops in 1978 and 1979 (Tables 5 to 15). Thus, the data from 1978 and 1979 for the ten weeds with the highest index were combined for each crop and presented in Table 14.

The ten most abundant weeds in wheat were also most abundant in the other surveyed crops, except Canada thistle and perennial sowthistle were in the top ten for barley in place of Russian thistle and field bindweed; and sunflowers had Canada thistle in place of field bindweed. Barley and sunflowers are grown more in the eastern part of North Dakota than the west. Field bindweed was more prevalent in the west and Canada thistle more prevalent in the east. Thus, the primary location of the crop in the state helps explain the variation in ranking of weed abundance.

Green foxtail was the most abundant weed in all crops. Wild oats ranked second for wheat and barley, third in oats, and lower in flax and sunflowers. Delayed seeding is known to reduce wild oat populations so the common practice of late seeding of flax may have caused reduced wild oat populations. The widespread use of trifluralin and cultivation probably explains the lower wild oat populations in sunflowers. Weed populations in general tended to be lower in sunflowers than in other crops except for wild mustard. Herbicide treatments most commonly used for sunflowers do not control wild mustard, which may explain the increased abundance of wild

mustard in sunflowers compared to levels in other crops. Wild mustard was more abundant in oats and flax compared to wheat and barley, probably because phenoxy herbicide use is lower in oats and flax. Wild buckwheat ranked third in wheat and barley and second in oats and flax. The abundance of wild buckwheat was greatest in oats but wheat, barley and flax all had relatively high infestations.

The weeds present in the surveyed fields in each county are presented in Tables 15 through 68 for 1978 and Tables 69 through 119 for 1979. The data on weed infestations in Foster and Stark counties, which were intensively surveyed in 1979 are presented in Tables 82 and 111, respectively. The maps presented in the figures give information on the distribution of major weeds by counties. The distribution of the various minor weeds can be determined from the county tables.

Agronomic practices used and characteristics of survey

The eleven weeds with the largest weed index in semidwarf and normal height wheat fields surveyed in 1978 and 1979 are presented in Table 120. In 1979 the same eleven top weeds occurred in semidwarf and normal height wheat. In 1978 volunteer sunflower was in the top group with semidwarf wheat while wild mustard appeared only with normal height wheat. Normal height wheat was grown more in the western part of North Dakota and semidwarf more in the eastern part. Thus, differences in weed infestations in the two wheat types may be more from location than type of wheat. The green foxtail index was higher in normal height wheat than semidwarf in 1979 and higher in semidwarf wheat than normal height wheat in 1978. Wild oats had a higher index rating in semidwarf wheat than in normal height wheat in both 1979 and 1978. Unpublished research results from North Dakota State University indicate that foxtail and wild oats are similarly competitive with semidwarf and normal height wheat, but wild oats produced more seed when grown in semidwarf wheat.

The influence of the previous crop on the eight weeds with the largest weed index in wheat in 1979 is presented in Table 121. Green foxtail index was lowest in wheat which followed sugarbeets and highest when wheat followed barley or oats in the rotation. The foxtail index was similar when wheat followed fallow, wheat, sunflower, beans or potatoes in the rotation. Redroot pigweed index was the highest, 117, in wheat which followed sugarbeets in the rotation. The redroot pigweed index was less than 69 in wheat which followed any crop other than sugarbeet. The high redroot pigweed index the year following sugarbeet reflects the importance of redroot pigweed in sugarbeets. Volunteer and wild sunflower were considered together. The sunflower index was 40 in wheat following sunflower in the rotation and was 20 following beans. However, sunflower only occurred in the top eight weeds when wheat followed sunflowers or beans. The high index for sunflowers as a weed following sunflower as a crop probably was due to volunteer tame sunflowers while sunflowers following beans were wild sunflowers, which commonly infest beans. The wild oats index rating was the highest in wheat following potatoes in the rotation and lowest following sugarbeets. Wild mustard occurred with a similar index in wheat following all crops in the rotation. Even though wild mustard did not occur in the top eight weeds when wheat followed sunflower or sugarbeet in the rotation, the index was 15 and 10, respectively.

Herbicide usage was mainly at the low correct to correct rate of application. From 22 to 37% of the triallate, EPTC, triallate plus trifluralin and barban was applied at

less than the rate generally considered correct (Table 122), while less than 12% of any herbicide was used at higher than the rate considered correct. The month of herbicide application differed with the herbicide (Table 122). Most postemergence herbicide applications were in June in 1979 while much of the soil applied herbicides were applied in May.

Wild oats was listed as the worst weed problem by the survey respondents in both 1978 and 1979 and was also listed as the most important weed prior to 5 years ago by the 1978 survey respondents (Table 123). However, only 36% of the respondents listed wild oats the most important weed in 1979 compared to 53% in 1978 and 61% for prior to 5 years ago. Foxtail, field bindweed and Canada thistle all had a higher per cent of most important weed ratings in 1979 than previously.

Delayed crop seeding for wild oats control was practiced by 59% of the 1,023 individuals responding to the delayed seeding question in 1979 and by 71% of the 215 respondents in 1978. Delayed seeding was used for all crops to control wild oats, but flax was delayed seeded by a higher percentage of survey respondents than any other crop (Table 124). Foxtail was listed as the worst weed by 23% of the respondents practicing delayed seeding and only by 10% of those not practicing delayed seeding. Wild oats was listed as the worst weed by 54% of the respondents practicing delayed seeding and by 60% of those not practicing delayed seeding. These results indicate that foxtail becomes more important as wild oats is controlled by delayed seeding. The shift to foxtail with delayed seeding probably occurs because foxtail is a warm season weed that gains a competitive advantage with the higher temperatures at late seeding. The respondents indicated a 12% greater usage of delayed seeding for wild oats control in 1978 than in 1979. Spring warming in 1979 occurred very late, which probably prevented further seeding delays for wild oats control.

The number of tillage operations in the spring by respondents who practiced delayed seeding for wild oats control varied from one to five, with 48% indicating two tillages in 1979 (Table 125). The average number of spring tillages by respondents practicing delayed seeding was 2.1 compared to 1.9 spring tillages by all respondents including those practicing delayed seeding. The number of spring tillages was 1.7 when the responses from those practicing delayed seeding were subtracted from the total responses. Thus, 0.4 extra tillages was practiced by respondents using delayed seeding compared to those not indicating a practice of delayed seeding. The late spring in 1979 may have reduced the amount of tillage possible for delayed seeding for wild oats control in addition to reducing the practice of delayed seeding. Wheat planting was less than 2% on May 10 in 1979 compared to 25 to 36% for the average between 1970-79 (7). Summerfallow fields most frequently received four tillages, with 30% of the respondents reporting four tillage operations for fallow (Table 125). Sixty-two per cent of the respondents indicated that only one tillage was performed in the fall after harvest.

A double disk press drill was used to seed small grains and flax by 96% of the survey respondents during 1978 and 1979 (Table 126).

The field cultivator was reported used more than any other tillage implement for spring seedbed and summer-fallow tillage by survey respondents in 1978 and 1979 (Table 127). Fallow fields were also tilled with a chisel plow by 37% of the respondents. Fall tillage was performed to a similar extent by moldboard plow, chisel plow

and field cultivator with 31, 29, 26% usage by survey respondents, respectively.

The number and percentage of survey respondents indicating the number of times a tillage implement was used for spring and fall tillage in 1978 are presented in Table 128.

The most frequently used fallow time interval for respondents using fallow was once every fourth year (Table 129). Fifty-nine per cent of the 1978 respondents indicated fallow every fourth year, 24% every other year and 16% every third year.

The number and per cent of the 1979 surveyed fields which followed various other crops is presented in Table 130. Wheat preceded all non-wheat fields in the survey, more often than any other crop probably reflecting the large acreage of wheat in North Dakota. Wheat fields were preceded by summerfallow most often, as 50 per cent of the respondents indicated that surveyed wheat fields were on summerfallow.

In addition to information on tillage, weeds and crop rotations in the various surveyed fields, information was also obtained relative to the respondent and his farming operation in 1979. The surveyed fields had been farmed by the same operator for 1 to 10 years by 30%, for 11 to 20 years by 23% and for 21 to 30 years by 25% of the respondents. One per cent of the respondents had farmed the same field for over 50 years (Table 131). The size of the farm operation for 67% of the survey respondents was between 321 and 1,600 acres and 1% exceeded 5,501 acres (Table 132). The age distribution of the survey respondents is presented in Table 133. Seventy-one per cent of the respondents were between 31 and 60 years old. Only 14% of the respondents were less than 30 years old and 15% were over 60.

Losses in wheat and barley production based on weed survey data, 1978 and 1979

Competition data from the literature was used to determine the yield losses in wheat from the various weed infestations as determined by the 1978 and 1979 surveys. Losses from weed competition in barley were only available for wild oats and loss in barley was about 25% less than in wheat. Thus, losses in barley from all weeds were assumed 25% less than in wheat. The crop production losses were determined only from the weeds for which competition information was available. Redroot pigweed, common lambsquarters, kochia, Russian thistle and perennial sowthistle were all weeds which were important in the survey, but were not included in the wheat and barley production losses because data on competition at various infestation levels were not found in the literature.

Wild oats caused more wheat production losses than any other weed in both 1978 and 1979 (Table 133). However, green foxtail caused wheat yield losses nearly equal to wild oats in 1979. Wild oats caused a 17,014,000 bushel wheat loss in 1978 and a 13,130,000 loss in 1979. The weed survey of Cass County (8) conducted in 1980 indicated that the wild oats density was 10 times higher than in 1979. These results indicate that losses from wild oats could vary widely from year to year. If Cass County was representative of the state, then the percentage loss in wheat from wild oats would have been 26% in the infested field compared to 7.6% which occurred in 1979. The 1980 wheat loss for wild oats would have been 61,292,000 bushels, assuming that Cass County was representative of the state, and field infestation frequency and wheat production was as in 1979.

Green foxtail caused a 8,475,000 bushel wheat loss in 1978 and 13,018,000 loss in 1979. Green foxtail caused a 2,653,000 and wild oats a 5,537,000 bushel loss in barley in 1978. However, the barley yield loss was greater from green foxtail than from wild oats in 1979, with 3,895,000 and 2,816,000 bushel yield loss, respectively. Wild oats and green foxtail caused the highest losses of the weeds presented in Table 133, except for Canada thistle, which caused similar losses in barley in 1979.

The infestation frequency for Canada thistle and field bindweed was less than for green foxtail or wild oats. However, Canada thistle and field bindweed are highly competitive, thus causing important losses in wheat and barley production. Canada thistle caused more than a 6,000,000 bushel wheat and 3,000,000 barley loss each year. Thus, Canada thistle was the third most important weed in reducing North Dakota wheat and barley production.

Wild mustard caused less than a 3 million bushel wheat loss in either year. Wild mustard is similarly competitive to wild oats, but the wild mustard infestation frequency was less than that for wild oats. The low frequency of wild mustard probably is a result of the extensive use of 2,4-D and MCPA which effectively control wild mustard.

The total wheat loss from only green foxtail, yellow foxtail, wild oats, wild buckwheat, wild mustard, field bindweed and Canada thistle was 41,712,000 bushels in 1978 and 44,154,000 bushels in 1979 (Table 134). These weeds caused an average wheat yield loss of 14.3% in 1978 and 17.0% in 1979. The above weeds caused a barley loss of 13,446,000 bushels or 11.7% in 1978 and 11,818,000 bushels or 15.1% in 1979.

The above losses from weeds were based upon individual weed species competition. Thus, losses in wheat or barley fields which were infested with more than one species may have been slightly less than a combined loss

of each weed alone. The weeds would compete with each other to reduce the total loss. Green foxtail probably was the only weed which occurred commonly with other weeds and the percentage losses used for foxtail competition were conservative. Thus, the competition among weeds probably did not greatly affect total crop losses. The total losses from weeds in wheat and barley would probably exceed those given in Table 134 if weeds not listed were considered. The 44,154,000 bushels of wheat and 11,818,000 bushels of barley loss from weeds in 1979 are losses which occur with present control practices. The weed surveys were taken prior to harvest and thus do not indicate what losses would have been without control practices. The total cost of weeds in these crops would also need to include the cost of chemical, tillage and cultural (delayed seeding) control practices.

The results of the survey indicate that progress has occurred in reducing the importance of wild oats in North Dakota. However, wild oats, foxtail, field bindweed and Canada thistle are still major problems in wheat and barley as well as other crops in North Dakota.

Losses in sunflower production based on the weed survey data, 1979

Results from the 1979 survey of sunflowers indicated that weeds cause important production losses. The sunflower production losses in 1979 were estimated as 72.0 million pounds from wild mustard, 19.2 million from wild oats and 62.0 million pounds from foxtail. Losses were estimated only for weeds previously included in sunflower-weed competition experiments at North Dakota State University (unpublished data). Surveyed weeds were those that survived herbicide treatment. A 1978 survey indicated that 88% of the sunflower acreage was treated with herbicides. Thus, sunflower yield losses from competition from only three weeds was 153 million pounds in North Dakota in 1979.

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Table 1. Number of crop sites surveyed in each county, 1978.

County	Wheat	Barley	Oats	Flax	Total	County	Wheat	Barley	Oats	Flax	Total
Nelson	26	3	2	—	31	Grant	11	—	8	—	19
Pembina	37	—	—	1	38	Emmons	18	4	6	3	31
Ramsey	27	12	—	—	39	Grand Forks	34	10	2	1	47
Renville	7	16	1	1	25	Golden Valley	9	—	—	—	9
Richland	29	5	3	—	37	Foster	4	9	6	—	19
Sargent	11	3	4	2	20	Divide	21	1	—	—	22
Ransom	14	—	5	—	19	Eddy	4	2	8	—	14
Rolette	14	5	2	1	22	Cavalier	25	21	—	—	46
Pierce	21	1	4	—	26	Cass	39	—	—	—	39
Slope	8	1	3	—	12	Burke	16	3	—	2	21
Stark	20	—	2	—	22	Bowman	11	2	2	—	15
Steele	15	12	—	2	29	Bottineau	19	23	1	1	44
Towner	27	5	—	—	32	Billings	5	—	—	—	5
Traill	18	9	2	2	31	Dunn	13	—	3	—	16
Walsh	38	4	1	1	44	Benson	29	4	3	2	38
Ward	14	30	6	1	51	Barnes	23	19	4	2	48
Williams	26	5	2	0	33	Adams	11	1	3	—	15
Mountrail	24	3	1	—	28	Dickey	7	14	8	—	29
Morton	13	2	5	—	20	Stutsman	3	4	3	1	11
Sioux	6	—	—	—	6	Kidder	1	1	2	1	5
Mercer	9	—	2	—	11	Logan	6	5	5	3	19
McKenzie	13	1	5	—	19	McIntosh	5	13	7	—	25
McHenry	22	5	4	1	32	LaMoure	10	10	8	5	33
McLean	38	1	3	2	44	Burleigh	4	10	12	—	26
Hettinger	19	—	1	—	20	Sheridan	4	7	10	0	21
Oliver	7	—	1	—	8	Wells	15	9	14	4	42
Griggs	9	8	2	1	20						
							859	303	176	40	1378

Table 2. Number of crop sites surveyed in each county, 1979.

County	Wheat	Barley	Oats	Flax	Sunflower	Total
Nelson	18	3	1	—	8	30
Pembina	25	7	—	—	6	38
Ramsey	21	4	—	2	13	40
Renville	14	5	—	1	5	25
Richland	13	1	2	—	23	39
Sargent	8	—	3	—	8	19
Ransom	2	1	2	—	13	18
Rolette	9	8	—	—	3	20
Pierce	18	2	1	1	4	26
Slope	9	—	3	—	—	12
Stark ^a	152(17)	—	26(3)	—	13(2)	191(22)
Steele	10	—	—	—	11	21
Towner	19	4	—	3	6	32
Traill	17	—	—	—	14	31
Walsh	28	9	1	—	5	43
Ward	30	1	1	2	10	44
Williams	34	—	1	—	—	35
Mountrail	27	—	—	—	1	28
Morton	11	3	5	—	1	20
Sioux	8	1	1	—	—	10
Mercer	7	—	3	—	1	11
McKenzie	17	—	2	—	—	19
McHenry	22	1	—	2	3	28
McLean	35	—	3	—	2	40
Hettinger	16	—	—	—	4	20
Oliver	5	2	3	—	—	10
Griggs	5	1	—	1	11	18
Grant	15	—	—	—	4	19
Emmons	25	—	1	5	1	32
Grand Forks	28	8	—	1	8	45
Golden Valley	9	—	—	—	1	10
Foster ^a	33(7)	3(1)	4(1)	—	35(10)	75(19)
Divide	22	—	—	—	—	22

Table 2 (continued)

County	Wheat	Barley	Oats	Flax	Sunflower	Total
Eddy	6	—	3	—	5	14
Cavalier	28	9	1	2	6	46
Cass	23	7	1	—	39	70
Burke	15	—	—	—	1	16
Bowman	12	—	3	—	—	15
Bottineau	28	4	—	6	7	45
Billings	6	—	4	—	—	10
Dunn	16	—	—	—	—	16
Benson	21	2	3	3	9	37
Barnes	15	5	1	1	26	48
Adams	13	—	—	—	2	15
Dickey	13	3	2	2	9	29
Stutsman	26	2	6	1	19	54
Kidder	16	—	1	1	1	19
Logan	16	—	2	—	1	19
McIntosh	13	2	3	5	2	25
LaMoure	15	2	4	2	9	32
Burleigh	20	—	2	—	4	26
Sheridan	15	—	1	—	5	21
Wells	21	2	1	2	12	38
	1050(889)	102(100)	100(74)	43(43)	371(335)	1666(1441)

^a() indicates the number of samples which were included in the state summary.

Table 3. North Dakota weed infestations averaged over wheat, barley, oats and flax based on 1378 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	94	82.4	87.2	43.8	47.5	0.2	396.0	215.9
Wild oats	66	32.8	49.8	6.1	9.3	0.2	197.4	68.9
Wild buckwheat	56	27.7	49.7	3.8	6.8	0.2	62.0	55.1
Redroot pigweed	45	15.7	35.1	1.9	4.3	0.2	58.6	35.1
Common lambsquarters	26	9.6	37.0	1.1	4.2	0.2	98.0	20.9
Kochia	25	7.4	29.5	0.9	3.5	0.2	99.6	17.9
Yellow foxtail	13	6.7	49.8	2.4	18.0	0.2	156.0	16.9
Russian thistle	22	6.8	31.6	1.1	5.2	0.2	51.8	16.6
Wild mustard	14	4.5	32.2	0.4	3.2	0.2	31.8	10.1
Perennial sowthistle	12	4.7	40.2	0.4	3.6	0.2	27.2	9.6
Field bindweed	10	4.2	44.1	0.7	7.3	0.2	39.2	9.1
Canada thistle	12	4.3	36.9	0.4	3.7	0.2	30.0	9.1
Volunteer sunflower	12	3.5	29.7	0.4	3.0	0.2	42.8	8.3
Nightflowering catchfly	7	2.5	37.5	0.3	4.5	0.2	23.8	5.4
Prostrate pigweed	5	1.1	20.3	0.1	2.1	0.2	29.4	3.1
Barnyardgrass	3	1.0	32.0	0.3	8.6	0.2	116.2	2.6
Quackgrass	3	1.0	36.2	0.1	4.6	0.2	20.6	2.3
Ragweed	3	0.7	22.0	0.1	1.8	0.2	13.8	1.9
Wild rose	3	0.6	19.5	0.1	2.3	0.2	10.0	1.6
Smartweed	1	0.7	51.4	0.1	6.7	0.6	23.2	1.3
Common purslane	2	0.5	32.6	<0.1	3.1	0.2	13.2	1.1
Prickly lettuce	2	0.2	12.6	<0.1	1.1	0.2	5.2	1.0
Common milkweed	2	0.2	8.1	<0.1	0.6	0.2	3.6	1.0
Bromegrass	1	0.4	50.9	0.1	7.9	2.6	41.8	0.8
Common cocklebur	1	0.3	20.3	<0.1	3.2	0.2	26.4	0.8
Roundleaf mallow	1	0.3	25.4	0.1	5.3	0.2	38.0	0.7
Clover	1	0.3	25.7	<0.1	2.4	0.2	9.0	0.7
Field pennycress	1	0.3	25.0	<0.1	1.8	0.2	6.2	0.6
Muskthistle	1	0.3	25.4	<0.1	1.7	0.4	4.8	0.6
Skeleton weed	1	0.1	15.4	<0.1	2.1	0.2	14.6	0.5
Yellow woodsorrel	1	0.2	28.9	<0.1	3.2	0.8	9.4	0.5
Wild geranium	1	0.2	19.6	<0.1	1.5	0.2	7.0	0.5
Volunteer barley	<1	0.2	37.5	<0.1	5.3	0.4	8.6	0.4

Table 3 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Sandbur	1	0.2	30.7	<0.1	3.3	0.2	15.6	0.4
Common chickweed	1	0.1	25.7	<0.1	7.9	0.8	42.0	0.4
Wild barley	1	0.1	16.2	<0.1	1.9	0.2	4.2	0.3
Common dandelion	<1	<0.1	12.0	<0.1	1.0	0.2	1.4	0.2
Needle & thread	<1	0.1	60.0	<0.1	5.7	2.6	11.0	0.2
Flixweed	<1	0.1	36.7	<0.1	2.9	2.2	4.2	0.2
Wild mint	<1	0.1	32.5	<0.1	3.3	0.2	8.8	0.2
Downy brome	<1	0.1	32.5	<0.1	4.0	1.2	9.0	0.2
Volunteer millet	<1	0.1	80.0	<0.1	7.3	3.8	10.8	0.2
Horseweed	<1	0.1	25.0	<0.1	3.7	3.6	3.8	0.1
Wild four-o'clock	<1	<0.1	30.0	<0.1	15.0	15.0	15.0	0.1
Silver cinquefoil	<1	<0.1	35.0	<0.1	2.6	2.6	2.6	0.1
Hedge bindweed	<1	<0.1	7.5	<0.1	0.3	0.2	0.6	0.1
Marshelder	<1	<0.1	20.0	<0.1	5.9	1.8	10.0	0.1
Volunteer tame oats	<1	<0.1	5.0	<0.1	0.3	0.2	0.4	0.1
Volunteer soybean	<1	<0.1	12.5	<0.1	0.6	0.6	0.6	0.1
Green sage	<1	<0.1	7.5	<0.1	0.3	0.2	0.4	0.1
Horsetail	<1	<0.1	17.5	<0.1	4.1	0.8	7.4	0.1
False chamomile	<1	<0.1	16.2	<0.1	0.6	0.2	0.8	0.1
Dock	<1	<0.1	10.0	<0.1	0.9	0.2	1.6	0.1
Greenflower pepperweed	<1	<0.1	40.0	<0.1	10.0	2.2	17.8	0.1
Volunteer corn	<1	0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Western snowberry	<1	<0.1	10.0	<0.1	0.4	0.4	0.4	<0.1
Waterleaf	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Timothy	<1	<0.1	5.0	<0.1	0.4	0.4	0.4	<0.1
Leafy spurge	<1	<0.1	20.0	<0.1	1.0	1.0	1.0	<0.1
Garrison creeping foxtail	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Knotweeds	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Weed free	15	4.0	26.3	—	—	—	—	—

Table 4. North Dakota weed infestations averaged over wheat, barley, oats, flax, and sunflowers based on 1441 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	94	77.3	81.9	63.2	67.0	0.2	396.0	256.3
Wild oats	60	25.3	42.3	4.1	6.8	0.2	289.0	54.7
Wild buckwheat	65	23.8	36.7	2.6	3.9	0.2	102.2	51.5
Redroot pigweed	63	20.0	31.6	3.7	5.8	0.2	197.8	49.7
Yellow foxtail	33	14.3	43.7	6.4	19.7	0.2	346.4	40.1
Wild mustard	48	15.3	31.5	1.7	3.5	0.2	186.4	35.4
Common lambsquarters	44	11.0	24.9	1.2	2.8	0.2	104.6	28.5
Russian thistle	31	8.7	28.4	1.3	4.2	0.2	68.0	22.0
Kochia	27	5.4	20.1	0.6	2.3	0.2	62.0	15.8
Field bindweed	18	6.1	34.4	0.8	4.7	0.2	34.4	13.9
Canada thistle	21	4.0	19.1	0.5	2.3	0.2	23.0	12.2
Prostrate pigweed	15	2.9	19.8	0.3	2.3	0.2	31.6	8.5
Volunteer sunflower	12	2.8	22.3	0.3	2.5	0.2	48.2	7.6
Prostrate spurge	11	1.8	17.1	0.2	1.6	0.2	40.6	5.7
Wild rose	11	1.5	13.5	0.1	1.1	0.2	13.0	5.5
Quackgrass	7	2.0	28.8	0.5	7.5	0.2	98.2	5.4
Perennial sowthistle	10	1.7	18.1	0.2	1.9	0.2	18.2	5.4
Field pennycress	10	1.7	17.8	0.2	1.9	0.2	35.2	5.4
Nightflowering catchfly	7	2.4	34.9	0.3	4.3	0.2	41.0	5.3
Common cocklebur	6	1.3	21.9	0.2	2.6	0.2	27.2	3.6
Ragweed	6	0.8	13.1	0.1	1.1	0.2	10.8	3.1
Common purslane	5	0.8	16.6	0.2	3.7	0.2	69.6	2.8
Flixweed	4	0.5	14.6	<0.1	1.2	0.2	10.8	1.8

Table 4 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Dwarf mallow	3	0.4	11.9	<0.1	0.9	0.2	6.8	1.6
Common milkweed	3	0.4	12.0	<0.1	1.2	0.2	5.8	1.5
Barnyardgrass	2	0.4	17.6	<0.1	1.7	0.2	8.6	1.3
Shepherdspurse	2	0.3	15.2	<0.1	1.0	0.2	8.2	1.1
Greenflower pepperweed	2	0.3	16.0	<0.1	1.4	0.2	7.8	1.1
Marshelder	2	0.4	22.0	<0.1	2.3	0.2	15.2	1.0
Volunteer millet	1	0.3	42.7	0.2	20.8	0.4	123.8	1.0
Yellow woodsorrel	2	0.3	15.2	<0.1	1.0	0.2	7.0	0.9
Smartweed	2	0.2	12.2	<0.1	1.0	0.2	2.8	0.8
Skeleton weed	2	0.2	12.4	<0.1	0.7	0.2	2.2	0.8
Leafy spurge	1	0.3	24.4	0.1	4.2	0.2	32.2	0.8
Common dandelion	1	0.2	18.9	<0.1	2.0	0.2	19.6	0.7
Large crabgrass	1	0.3	30.4	<0.1	2.7	0.2	14.0	0.7
Prickly lettuce	1	0.1	10.9	<0.1	1.1	0.2	6.6	0.6
Wild barley	1	0.1	13.6	0.1	5.4	0.2	27.4	0.6
Fumitory	1	0.2	26.4	<0.1	2.4	0.2	9.6	0.5
Clover	1	0.1	13.2	<0.1	0.8	0.2	1.8	0.4
Dock	1	0.1	12.5	<0.1	0.9	0.2	3.6	0.4
Hedge bindweed	<1	0.1	15.7	<0.1	1.3	0.2	3.0	0.3
Volunteer soybean	1	0.1	18.1	<0.1	1.1	0.2	3.2	0.3
Knotweeds	1	0.1	15.6	<0.1	0.9	0.2	2.4	0.3
Downy brome	1	0.1	14.4	<0.1	1.9	0.2	6.4	0.3
Volunteer alfalfa	<1	0.2	31.4	<0.1	2.1	0.2	4.4	0.3
Wild vetch	1	0.1	8.3	<0.1	0.4	0.2	1.0	0.3
Volunteer corn	<1	0.1	20.8	<0.1	2.0	0.2	5.0	0.2
Roundleaf mallow	<1	<0.1	11.7	<0.1	0.8	0.2	3.0	0.2
False chamomile	<1	0.1	13.6	<0.1	0.7	0.2	1.4	0.2
Volunteer wheat	<1	<0.1	12.0	<0.1	0.8	0.2	1.8	0.2
Silver cinquefoil	<1	<0.1	18.3	<0.1	1.2	0.2	2.0	0.1
Western salsify	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	0.1
Scurf pea	<1	<0.1	5.0	<0.1	0.5	0.2	0.8	0.1
Poverty weed	<1	<0.1	15.0	<0.1	1.8	0.4	3.2	0.1
Western snowberry	<1	<0.1	55.0	<0.1	6.4	6.4	6.4	0.1
Buffalo bur	<1	<0.1	40.0	<0.1	3.4	3.4	3.4	0.1
Witchgrass	<1	<0.1	8.3	<0.1	0.6	0.2	1.2	0.1
Sandbur	<1	<0.1	16.7	<0.1	0.9	0.2	1.8	0.1
Bromegrass	<1	<0.1	10.0	<0.1	0.7	0.2	1.2	0.1
Horsetail	<1	<0.1	15.0	<0.1	1.1	0.2	2.6	0.1
Volunteer rye	<1	<0.1	12.5	<0.1	0.6	0.2	1.0	0.1
Austrian fieldcress	<1	0.1	37.5	<0.1	3.4	2.6	4.2	0.1
Volunteer flax	<1	<0.1	10.0	<0.1	1.9	0.8	3.0	0.1
Waterpod	<1	<0.1	12.5	<0.1	0.8	0.2	1.4	0.1
Black medic	<1	0.1	85.0	<0.1	25.2	25.2	25.2	0.1
Wild four-o'clock	<1	<0.1	15.0	<0.1	1.2	1.2	1.2	<0.1
Ball mustard	<1	<0.1	15.0	<0.1	1.2	1.2	1.2	<0.1
White mustard	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Gumweed	<1	<0.1	15.0	<0.1	1.6	1.6	1.6	<0.1
Flodmans thistle	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Volunteer barley	<1	<0.1	5.0	<0.1	0.8	0.8	0.8	<0.1
Wild geranium	<1	<0.1	15.0	<0.1	0.6	0.6	0.6	<0.1
Wild licorice	<1	<0.1	20.0	<0.1	1.0	1.0	1.0	<0.1
Weed free	27	6.0	22.0	—	—	—	—	—

Table 5. North Dakota weed infestations in wheat based on 859 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	94	80.9	85.3	42.2	43.3	0.2	396.0	210.7
Wild oats	67	32.4	48.6	6.3	9.5	0.2	197.4	69.3
Wild buckwheat	54	23.2	42.9	2.8	5.2	0.2	39.0	47.8
Redroot pigweed	52	17.2	33.4	2.1	4.0	0.2	58.6	39.3
Yellow foxtail	17	8.7	50.4	3.2	18.5	0.2	156.0	22.0
Kochia	26	6.5	25.1	0.6	2.4	0.2	44.2	16.6
Russian thistle	22	6.5	29.5	1.1	5.0	0.2	45.2	16.3
Common lambsquarters	20	5.5	27.6	0.6	2.9	0.2	46.2	13.6
Canada thistle	11	3.8	34.0	0.4	3.5	0.2	15.6	8.5
Field bindweed	9	3.5	37.2	0.7	7.6	0.2	39.2	8.2
Wild mustard	12	3.0	25.7	0.3	2.8	0.2	31.8	7.6
Nightflowering catchfly	8	3.0	38.6	0.4	4.9	0.2	23.8	6.4
Volunteer sunflower	10	2.2	21.5	0.2	2.4	0.2	42.8	6.2
Perennial sowthistle	8	2.8	36.7	0.3	3.3	0.2	27.2	6.0
Prostrate pigweed	6	1.1	19.4	0.1	2.1	0.2	29.4	3.3
Barnyardgrass	3	0.8	25.0	0.3	8.3	0.2	116.2	2.6
Ragweed	4	0.9	21.7	0.1	1.9	0.2	13.8	2.4
Quackgrass	3	0.6	23.6	0.1	3.3	0.2	10.0	1.7
Wild rose	3	0.5	18.3	0.1	2.0	0.2	7.8	1.5
Prickly lettuce	2	0.3	14.3	<0.1	1.3	0.2	5.2	1.2
Smartweed	1	0.5	43.5	0.1	5.6	0.6	21.0	1.0
Common purslane	1	0.4	30.4	<0.1	3.5	0.2	13.2	1.0
Common milkweed	2	0.1	6.6	<0.1	0.4	0.2	1.6	0.9
Roundleaf mallow	1	0.3	27.2	0.1	7.2	0.2	38.0	0.8
Common cocklebur	1	0.2	15.4	<0.1	1.5	0.2	5.2	0.7
Bromegrass	1	0.3	45.8	<0.1	4.8	2.6	11.0	0.6
Common chickweed	1	0.2	29.2	0.1	9.1	0.8	42.0	0.6
Yellow woodsorrel	1	0.2	23.7	<0.1	2.4	0.8	4.8	0.6
Skeleton weed	1	0.1	13.1	<0.1	2.2	0.2	14.6	0.5
Clover	1	0.2	18.1	<0.1	1.5	0.2	3.6	0.5
Flixweed	<1	0.1	36.7	<0.1	2.9	2.2	4.2	0.3
Wild geranium	1	0.1	17.0	<0.1	1.1	0.2	2.2	0.3
Muskthistle	<1	0.1	22.5	<0.1	1.3	0.6	2.2	0.3
Volunteer millet	<1	0.2	80.0	<0.1	7.3	3.8	10.8	0.3
Marshelder	<1	<0.1	20.0	<0.1	5.9	1.8	10.0	0.2
Common dandelion	<1	0.1	11.2	<0.1	0.9	0.2	1.4	0.2
Field pennycress	<1	<0.1	6.3	<0.1	0.3	0.2	0.4	0.2
Needle & thread	<1	0.1	40.0	<0.1	3.0	2.6	3.4	0.2
Wild mint	<1	0.1	57.5	<0.1	6.4	4.0	8.8	0.2
False chamomile	<1	0.1	15.0	<0.1	0.6	0.2	0.8	0.2
Horseweed	<1	<0.1	15.0	<0.1	3.8	3.8	3.8	0.1
Wild four-o'clock	<1	<0.1	30.0	<0.1	15.0	15.0	15.0	0.1
Hedge bindweed	<1	<0.1	5.0	<0.1	0.3	0.2	0.4	0.1
Western snowberry	<1	<0.1	10.0	<0.1	0.4	0.4	0.4	0.1
Sandbur	<1	<0.1	35.0	<0.1	1.8	1.8	1.8	0.1
Volunteer tame oats	<1	<0.1	5.0	<0.1	0.3	0.2	0.4	0.1
Wild barley	<1	<0.1	5.0	<0.1	1.2	0.2	3.0	0.1
Volunteer soybean	<1	<0.1	12.5	<0.1	0.6	0.6	0.6	0.1
Green sage	<1	<0.1	7.5	<0.1	0.3	0.2	0.4	0.1
Horsetail	<1	<0.1	17.5	<0.1	4.1	0.8	7.4	0.1
Downy brome	<1	0.1	22.5	<0.1	1.7	1.2	2.2	0.1
Dock	<1	<0.1	15.0	<0.1	1.6	1.6	1.6	0.1
Greenflower pepperweed	<1	<0.1	40.0	<0.1	17.8	17.8	17.8	0.1
Volunteer corn	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Waterleaf	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Garrison creeping foxtail	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Knotweeds	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Weed free	21	<5.3	25.8	—	—	—	—	—

Table 6. North Dakota weed infestations in wheat based on 889 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	95	81.9	86.3	70.7	74.6	0.2	396.0	278.5
Wild oats	67	29.8	44.5	5.1	7.6	0.2	289.0	64.0
Redroot pigweed	67	23.5	35.1	4.5	6.7	0.2	197.8	56.4
Wild buckwheat	66	26.0	39.3	2.8	4.2	0.2	89.8	54.6
Yellow foxtail	27	12.9	47.5	6.5	24.1	0.2	346.4	37.1
Common lambsquarters	40	10.8	27.0	1.4	3.4	0.2	104.6	27.2
Wild mustard	39	11.1	28.7	1.3	3.3	0.2	146.0	27.0
Russian thistle	33	10.0	30.3	1.6	4.9	0.2	68.0	24.6
Kochia	27	5.4	20.3	0.7	2.7	0.2	62.0	16.0
Field bindweed	19	7.1	36.5	1.0	5.0	0.2	34.4	15.8
Canada thistle	17	3.4	19.8	0.4	2.3	0.2	23.0	10.1
Prostrate pigweed	15	3.3	22.3	0.4	2.9	0.2	31.6	9.3
Volunteer sunflower	15	3.3	22.2	0.4	2.6	0.2	48.2	9.2
Nightflowering catchfly	8	2.7	35.7	0.4	4.8	0.2	41.0	6.1
Wild rose	11	1.7	14.8	0.1	1.2	0.2	13.0	5.7
Field pennycress	9	1.5	17.3	0.2	1.9	0.2	35.2	4.8
Perennial sowthistle	8	1.6	19.9	0.2	2.0	0.2	18.2	4.7
Prostrate spurge	8	1.3	15.7	0.1	1.3	0.2	18.8	4.4
Common cocklebur	7	1.6	23.8	0.2	2.7	0.2	18.0	4.1
Quackgrass	5	1.4	31.3	0.3	5.8	0.4	29.2	3.6
Common purslane	4	0.7	18.9	0.2	6.1	0.2	69.6	2.5
Flixweed	4	0.7	14.9	<0.1	1.1	0.2	6.4	2.2
Ragweed	4	0.5	11.7	<0.1	1.1	0.2	10.8	1.9
Dwarf mallow	3	0.5	13.2	<0.1	1.0	0.2	6.8	1.7
Barnyardgrass	2	0.5	19.1	<0.1	1.4	0.2	4.0	1.4
Marshelder	2	0.5	23.2	0.1	2.4	0.2	15.2	1.3
Greenflower pepperweed	2	0.4	15.5	<0.1	1.2	0.2	7.8	1.3
Leafy spurge	1	0.3	25.9	0.1	5.5	0.4	32.2	0.9
Skeleton weed	2	0.2	13.0	<0.1	0.7	0.2	2.2	0.8
Common milkweed	2	0.2	13.6	<0.1	1.1	0.2	3.6	0.8
Yellow woodsorrel	2	0.3	16.4	<0.1	1.3	0.2	7.0	0.8
Common dandelion	1	0.3	26.0	<0.1	3.1	0.2	19.6	0.7
Wild barley	1	0.1	11.4	0.1	4.3	0.2	24.8	0.7
Large crabgrass	1	0.3	37.5	<0.1	2.4	0.2	6.2	0.7
Smartweed	1	0.2	11.7	<0.1	1.0	0.2	2.8	0.6
Prickly lettuce	1	0.1	10.5	<0.1	1.0	0.2	4.0	0.5
Fumitory	1	0.3	46.0	<0.1	4.6	0.4	9.6	0.5
Volunteer millet	<1	0.2	55.0	0.1	24.1	1.6	67.4	0.5
Downy brome	1	0.1	15.0	<0.1	2.2	0.2	6.4	0.4
Dock	1	0.1	10.0	<0.1	0.7	0.2	2.0	0.4
Volunteer soybean	<1	0.1	23.7	<0.1	1.3	0.2	3.2	0.3
Clover	1	0.1	10.0	<0.1	0.8	0.2	1.8	0.3
Knotweeds	1	0.1	16.0	<0.1	1.1	0.2	2.4	0.3
False chamomile	1	0.1	13.0	<0.1	0.7	0.2	1.4	0.3
Wild vetch	1	0.1	7.5	<0.1	0.4	0.2	1.0	0.3
Roundleaf mallow	<1	0.1	16.7	<0.1	1.2	0.2	3.0	0.2
Hedge bindweed	<1	0.1	23.3	<0.1	1.9	0.2	3.0	0.2
Sandbur	<1	0.1	16.7	<0.1	0.9	0.2	1.8	0.2
Volunteer alfalfa	<1	0.1	23.3	<0.1	1.3	0.2	3.4	0.2
Austrian fieldcress	<1	0.1	37.5	<0.1	3.4	2.6	4.2	0.2
Shepherdspurse	1	<0.1	6.0	<0.1	0.2	0.2	0.4	0.2
Volunteer corn	<1	0.1	25.0	<0.1	2.9	0.8	5.0	0.1
Silver cinquefoil	<1	<0.1	15.0	<0.1	1.1	0.2	2.0	0.1
Scurf pea	<1	<0.1	5.0	<0.1	0.6	0.4	0.8	0.1
Poverty weed	<1	<0.1	20.0	<0.1	3.2	3.2	3.2	0.1
Witchgrass	<1	<0.1	8.3	<0.1	0.6	0.2	1.2	0.1
Horsetail	<1	<0.1	30.0	<0.1	2.6	2.6	2.6	0.1
Volunteer flax	<1	<0.1	7.5	<0.1	1.9	0.8	3.0	0.1
Waterpod	<1	<0.1	10.0	<0.1	0.8	0.2	1.4	0.1
Western salsify	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Flodmans thistle	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Bromegrass	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Volunteer rye	<1	<0.1	5.0	<0.1	0.2	0.2	0.2	<0.1
Weed free	16	2.8	17.3	—	—	—	—	—

Table 7. North Dakota weed infestations in barley based on 303 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	90.1	91.3	42.0	43.3	0.2	342.4	220.8
Wild oats	63	35.7	56.7	7.1	11.3	0.2	94.8	73.4
Wild buckwheat	53	30.0	56.5	4.6	8.6	0.2	62.0	58.4
Common lambsquarters	37	18.3	49.1	1.7	4.5	0.2	14.2	34.7
Redroot pigweed	33	13.9	42.1	1.4	4.4	0.2	23.8	28.3
Kochia	28	11.7	41.0	1.9	6.9	0.2	99.6	25.7
Perennial sowthistle	21	9.7	45.0	0.8	3.7	0.2	11.2	18.7
Russian thistle	16	6.1	37.4	1.0	6.4	0.2	51.8	13.9
Volunteer sunflower	16	6.6	41.4	0.6	4.0	0.2	30.2	13.3
Canada thistle	15	6.3	43.6	0.7	4.6	0.2	30.0	12.7
Wild mustard	13	5.1	38.6	0.4	3.2	0.2	15.0	10.5
Field bindweed	9	5.8	63.0	0.6	6.6	0.2	15.2	10.3
Nightflowering catchfly	8	2.9	35.4	0.3	3.6	0.2	16.8	6.4
Quackgrass	4	2.1	49.2	0.2	5.2	0.2	20.6	4.1
Prostrate pigweed	4	1.1	26.2	0.1	2.2	0.2	11.2	2.8
Yellow foxtail	2	1.2	62.5	0.4	18.0	3.2	53.8	2.7
Smartweed	2	1.5	64.3	0.2	8.9	2.2	23.2	2.7
Field pennycress	3	1.1	35.6	0.1	2.6	0.4	6.2	2.2
Common purslane	3	0.9	33.1	0.1	2.5	0.4	6.0	1.9
Barnyardgrass	1	0.8	57.5	0.1	8.9	1.0	17.0	1.5
Ragweed	2	0.6	27.9	<0.1	2.0	0.8	3.4	1.5
Sandbur	2	0.6	30.0	0.1	3.5	0.2	15.6	1.4
Common milkweed	3	0.4	12.2	<0.1	1.2	0.2	3.6	1.4
Volunteer barley	1	0.6	47.5	0.1	6.5	4.8	8.6	1.3
Muskthistle	2	0.5	23.3	<0.1	1.5	0.4	3.4	1.2
Brome grass	1	0.5	46.7	<0.1	4.2	3.6	5.0	0.9
Wild geranium	1	0.2	16.2	<0.1	0.9	0.6	1.2	0.7
Wild rose	1	0.1	10.0	<0.1	0.7	0.2	1.4	0.6
Clover	1	0.2	23.3	<0.1	1.8	0.4	4.4	0.6
Roundleaf mallow	1	0.2	18.3	<0.1	1.5	0.4	3.4	0.5
Downy brome	<1	0.2	55.0	<0.1	9.0	9.0	9.0	0.4
Yellow woodsorrel	<1	0.2	70.0	<0.1	9.4	9.4	9.4	0.4
Skeleton weed	<1	0.2	50.0	<0.1	5.0	5.0	5.0	0.3
Common cocklebur	1	0.1	10.0	<0.1	0.8	0.2	1.4	0.3
Wild mint	1	<0.1	7.5	<0.1	0.3	0.2	0.4	0.3
Silver cinquefoil	<1	0.1	35.0	<0.1	2.6	2.6	2.6	0.2
Hedge bindweed	<1	<0.1	15.0	<0.1	0.6	0.6	0.6	0.2
Leafy spurge	<1	0.1	20.0	<0.1	1.0	1.0	1.0	0.2
False chamomile	<1	0.1	20.0	<0.1	0.8	0.8	0.8	0.2
Prickly lettuce	<1	<0.1	5.0	<0.1	0.4	0.4	0.4	0.1
Weed free	7	2.3	31.6	—	—	—	—	—

Table 8. North Dakota weed infestations in barley based on 100 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	99	90.1	91.0	92.6	93.5	0.2	396.0	339.1
Wild buckwheat	86	38.2	44.5	4.3	5.0	0.2	33.0	77.0
Wild oats	68	36.1	53.2	5.4	8.0	0.2	59.4	71.5
Redroot pigweed	56	16.4	29.3	2.3	4.2	0.2	81.4	40.5
Yellow foxtail	25	12.1	48.4	8.6	34.3	0.2	301.0	40.4
Canada thistle	32	8.1	25.3	1.1	3.4	0.2	22.4	21.3
Common lambsquarters	35	7.8	22.3	0.7	1.9	0.2	9.8	21.0
Wild mustard	32	6.1	19.1	0.7	2.1	0.2	22.8	18.3
Kochia	30	6.3	21.0	0.7	2.4	0.2	20.2	18.0
Nightflowering catchfly	20	7.6	38.0	0.8	3.8	0.2	14.2	16.0
Russian thistle	16	4.6	29.1	0.6	3.8	0.2	19.6	11.4
Volunteer sunflower	11	4.1	37.3	0.6	5.6	0.2	21.8	9.2

Table 8 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Quackgrass	8	2.9	36.9	1.0	12.6	0.4	68.6	8.0
Field bindweed	10	3.1	31.5	0.3	2.8	0.2	10.2	7.1
Perennial sowthistle	9	2.9	32.2	0.4	4.4	0.2	12.8	6.8
Wild rose	11	1.8	16.8	0.1	1.1	0.2	2.6	5.8
Prostrate spurge	10	1.9	19.0	0.1	1.3	0.2	4.8	5.5
Common cocklebur	7	1.3	19.3	0.1	1.9	0.4	3.8	4.0
Prostrate pigweed	6	1.1	18.3	0.1	1.7	0.2	6.0	3.3
Field pennycress	7	0.5	7.1	<0.1	0.6	0.2	2.8	2.9
Barnyardgrass	4	0.8	21.2	0.1	2.0	0.2	5.0	2.4
Common milkweed	4	0.5	13.7	0.1	1.8	0.8	3.0	2.0
Dwarf mallow	5	0.2	5.0	<0.1	0.2	0.2	0.4	1.9
Ragweed	3	0.4	13.3	<0.1	0.5	0.2	1.2	1.4
Yellow woodsorrel	2	0.3	17.5	<0.1	1.0	0.2	1.8	1.1
Dock	1	0.4	45.0	<0.1	3.6	3.6	3.6	0.9
Volunteer alfalfa	1	0.2	25.0	<0.1	2.0	2.0	2.0	0.6
Fumitory	1	0.2	20.0	<0.1	1.6	1.6	1.6	0.6
Ball mustard	1	0.1	15.0	<0.1	1.2	1.2	1.2	0.5
Leafy spurge	1	0.1	15.0	<0.1	1.2	1.2	1.2	0.5
Volunteer corn	1	<0.1	5.0	<0.1	1.2	1.2	1.2	0.4
Marshelder	1	<0.1	5.0	<0.1	0.2	0.2	0.2	0.4
Prickly lettuce	1	0.1	10.0	<0.1	0.4	0.4	0.4	0.4
Weed free	19	3.1	16.3	—	—	—	—	—

Table 9. North Dakota weed infestations in oats based on 176 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	89	80.3	87.4	28.9	32.7	0.6	376.4	177.4
Wild buckwheat	65	42.3	64.8	6.8	10.4	0.2	35.2	80.0
Wild oats	73	33.1	45.5	4.2	5.7	0.2	54.6	67.1
Common lambsquarters	36	14.4	39.6	2.2	6.1	0.2	76.4	31.7
Redroot pigweed	34	10.8	32.1	1.8	5.3	0.2	45.0	26.1
Russian thistle	26	9.3	36.2	1.4	5.3	0.2	24.6	21.0
Yellow foxtail	15	5.8	39.2	2.0	13.8	0.2	78.0	15.5
Wild mustard	19	6.6	35.2	0.6	3.3	0.2	30.0	14.3
Perennial sowthistle	14	5.5	38.4	0.6	4.0	0.2	18.2	11.5
Field bindweed	12	5.3	44.8	0.9	7.6	0.2	28.2	11.4
Volunteer sunflower	13	4.9	37.4	0.4	3.1	0.2	13.0	10.2
Kochia	16	3.8	24.1	0.3	2.2	0.2	14.2	9.9
Canada thistle	7	2.5	37.1	0.2	2.7	0.6	5.2	5.2
Wild rose	5	1.6	31.7	0.2	4.3	0.2	10.0	3.8
Prostrate pigweed	4	0.9	21.4	0.1	3.0	0.2	15.0	2.5
Common cocklebur	3	1.0	36.0	0.2	8.4	0.2	26.4	2.5
Quackgrass	2	1.3	78.3	0.2	12.2	2.6	18.4	2.4
Wild barley	3	0.7	23.0	0.1	2.4	1.4	4.2	1.8
Bromegrass	1	0.6	100.0	0.2	41.8	41.8	41.8	1.3
Clover	1	0.7	62.5	0.1	6.4	3.8	9.0	1.3
Prickly lettuce	2	0.2	7.5	<0.1	0.8	0.2	2.0	1.0
Common milkweed	2	0.1	6.3	<0.1	0.3	0.2	0.6	0.9
Needle & thread	1	0.6	100.0	0.1	11.0	11.0	11.0	0.9
Ragweed	2	0.2	11.7	<0.1	0.7	0.2	1.6	0.8
Barnyardgrass	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.7
Volunteer barley	1	0.2	17.5	<0.1	2.8	0.4	5.2	0.7
Muskthistle	1	0.3	25.0	<0.1	1.8	0.6	3.0	0.7
Common purslane	1	0.3	55.0	<0.1	4.0	4.0	4.0	0.6
Wild geranium	1	0.3	50.0	<0.1	7.0	7.0	7.0	0.6
Smartweed	1	0.2	40.0	<0.1	2.6	2.6	2.6	0.5
Skeleton weed	1	0.1	10.0	<0.1	0.6	0.2	1.0	0.5

Table 9 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Horseweed	1	0.2	35.0	<0.1	3.6	3.6	3.6	0.4
Downy brome	1	0.2	30.0	<0.1	3.6	3.6	3.6	0.4
Dock	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.4
Greenflower pepperweed	1	0.2	40.0	<0.1	2.2	2.2	2.2	0.4
Roundleaf mallow	1	0.1	15.0	<0.1	1.4	1.4	1.4	0.3
Common dandelion	1	0.1	15.0	<0.1	1.2	1.2	1.2	0.3
Nightflowering catchfly	1	0.1	15.0	<0.1	0.8	0.8	0.8	0.3
Field pennycress	1	<0.1	5.0	<0.1	0.6	0.6	0.6	0.2
Common chickweed	1	<0.1	5.0	<0.1	0.8	0.8	0.8	0.2
Timothy	1	<0.1	5.0	<0.1	0.4	0.4	0.4	0.2
Weed free	7	1.8	24.6	—	—	—	—	—

Table 10. North Dakota weed infestations in oats based on 74 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	95	79.9	84.4	112.8	119.2	0.2	396.0	374.6
Wild buckwheat	77	36.2	47.0	5.7	7.4	0.2	102.2	75.3
Redroot pigweed	61	20.3	33.4	7.4	12.2	0.2	184.0	57.9
Common lambsquarters	73	21.8	29.9	2.4	3.3	0.2	35.0	51.7
Yellow foxtail	31	15.7	50.7	9.5	30.6	0.2	281.0	48.3
Russian thistle	57	20.3	35.8	3.0	5.3	0.2	56.6	46.3
Wild mustard	51	17.8	34.7	4.5	8.8	0.2	186.4	45.5
Wild oats	45	19.0	42.6	3.5	7.9	0.2	61.0	42.0
Kochia	42	9.9	23.7	1.0	2.4	0.2	18.6	26.2
Field bindweed	24	7.8	31.9	1.0	4.0	0.4	13.8	18.2
Prostrate pigweed	19	4.3	22.9	0.4	2.3	0.2	12.2	11.7
Canada thistle	15	3.9	26.4	0.6	4.3	0.2	21.4	10.4
Field pennycress	14	3.9	28.5	0.4	3.2	0.2	9.8	9.4
Quackgrass	15	2.7	18.2	0.5	3.0	0.6	8.6	8.7
Perennial sowthistle	14	3.1	23.0	0.5	3.6	0.2	12.4	8.7
Volunteer sunflower	16	2.3	14.2	0.2	1.0	0.2	5.6	8.1
Prostrate spurge	11	2.9	26.9	0.7	6.5	0.2	40.6	8.1
Volunteer millet	3	1.8	67.5	1.8	68.3	12.8	123.8	7.0
Wild rose	14	1.4	10.5	0.1	0.9	0.2	2.2	6.2
Common purslane	5	1.7	31.3	0.3	6.0	0.4	19.4	4.3
Large crabgrass	5	1.5	27.5	0.2	4.3	0.6	14.0	3.8
Yellow woodsorrel	7	1.3	19.0	0.1	1.1	0.8	1.8	3.7
Prickly lettuce	7	0.9	13.0	0.1	1.8	0.2	6.6	3.4
Common cocklebur	5	1.3	23.7	0.1	2.1	1.2	4.4	3.4
Common milkweed	5	1.0	18.8	0.2	3.1	1.0	5.8	3.2
Common dandelion	5	0.9	17.5	0.1	1.2	0.2	3.2	2.9
Flixweed	7	0.5	8.0	<0.1	0.4	0.2	0.8	2.9
Ragweed	5	0.7	13.7	0.1	1.1	0.4	1.6	2.7
Black medic	1	1.1	85.0	0.3	25.2	25.2	25.2	2.4
Leafy spurge	4	0.8	20.0	0.1	1.9	1.6	2.0	2.3
Smartweed	4	0.7	18.3	<0.1	0.9	0.2	1.8	2.2
Nightflowering catchfly	1	1.0	75.0	0.1	8.2	8.2	8.2	1.7
Skeleton weed	3	0.5	17.5	<0.1	1.1	0.2	2.0	1.4
Western snowberry	1	0.7	55.0	0.1	6.4	6.4	6.4	1.4
Knotweeds	3	0.4	15.0	<0.1	0.8	0.2	1.4	1.4
Volunteer wheat	3	0.4	15.0	<0.1	1.0	0.2	1.8	1.4
Downy brome	3	0.3	12.5	<0.1	0.7	0.6	0.8	1.3
Clover	3	0.3	10.0	<0.1	0.5	0.4	0.6	1.2
Volunteer alfalfa	1	0.7	50.0	<0.1	3.0	3.0	3.0	1.2
Dwarf mallow	3	0.3	10.0	<0.1	0.8	0.6	1.0	1.2
Volunteer corn	1	0.5	40.0	<0.1	2.6	2.6	2.6	1.1
Roundleaf mallow	3	0.1	5.0	<0.1	0.3	0.2	0.4	1.1

Table 10 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Buffalo bur	1	0.5	40.0	<0.1	3.4	3.4	3.4	1.1
Western salsify	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
False chamomile	1	0.3	25.0	<0.1	1.2	1.2	1.2	0.8
Wild licorice	1	0.3	20.0	<0.1	1.0	1.0	1.0	0.8
Gumweed	1	0.2	15.0	<0.1	1.6	1.6	1.6	0.7
Bromegrass	1	0.2	15.0	<0.1	1.2	1.2	1.2	0.7
Wild geranium	1	0.2	15.0	<0.1	0.6	0.6	0.6	0.7
Volunteer flax	1	0.2	15.0	<0.1	2.0	2.0	2.0	0.7
Poverty weed	1	0.1	10.0	<0.1	0.4	0.4	0.4	0.6
Wild barley	1	0.1	10.0	<0.1	0.4	0.4	0.4	0.6
Hedge bindweed	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
White mustard	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Scurf pea	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Wild vetch	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Waterpod	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Greenflower pepperweed	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Weed free	12	2.1	17.2	—	—	—	—	—

Table 11. North Dakota weed infestations in flax based on 40 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	92	80.4	91.3	24.8	26.1	1.6	86.0	168.9
Wild buckwheat	68	42.0	62.2	6.0	8.9	0.2	34.6	78.4
Wild mustard	45	21.7	48.3	2.2	4.9	0.2	20.6	41.9
Redroot pigweed	38	18.6	49.7	2.4	6.5	0.2	21.6	36.8
Wild oats	38	17.6	47.0	2.5	6.7	0.2	39.2	36.0
Common lambsquarters	25	11.4	45.5	3.1	12.5	0.4	98.0	27.0
Russian thistle	38	9.0	24.0	1.0	2.6	0.2	15.2	23.8
Kochia	28	11.1	40.5	1.0	3.7	0.4	12.2	22.7
Yellow foxtail	13	9.0	72.0	3.1	25.0	3.4	64.0	20.5
Barnyardgrass	15	9.4	62.5	2.2	14.4	1.4	27.0	19.4
Canada thistle	15	5.0	33.3	0.3	2.1	0.8	4.6	10.7
Perennial sowthistle	13	4.4	35.0	0.4	3.4	0.4	5.0	9.5
Volunteer sunflower	13	3.5	28.0	0.2	1.8	0.6	4.0	8.2
Field bindweed	8	3.4	45.0	0.3	3.8	2.2	4.8	6.5
Prostrate pigweed	13	1.6	13.0	0.1	1.1	0.2	3.8	6.1
Muskthistle	5	1.9	37.5	0.1	2.9	1.0	4.8	3.9
Clover	5	1.1	22.5	0.1	2.6	1.4	3.8	3.1
Wild rose	8	0.4	5.0	<0.1	0.4	0.4	0.4	2.9
Wild geranium	5	0.9	17.5	<0.1	0.8	0.6	1.0	2.6
Bromegrass	3	1.1	45.0	0.1	3.6	3.6	3.6	2.2
Roundleaf mallow	3	1.0	40.0	0.1	2.6	2.6	2.6	2.0
Skeleton weed	3	0.2	10.0	<0.1	1.4	1.4	1.4	1.2
Quackgrass	3	0.4	15.0	<0.1	0.6	0.6	0.6	1.2
Prickly lettuce	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Volunteer tame oats	3	0.1	5.0	<0.1	0.4	0.4	0.4	1.0

Table 12. North Dakota weed infestations in flax based on 43 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	93	77.7	83.5	53.4	57.4	2.8	321.0	233.3
Wild mustard	74	31.2	41.9	3.4	4.5	0.2	33.6	63.8
Wild oats	67	24.2	35.9	2.5	3.7	0.2	21.6	52.5
Wild buckwheat	63	24.0	38.1	2.2	3.5	0.2	10.4	49.9
Redroot pigweed	65	22.0	33.7	2.5	3.8	0.2	20.0	49.5
Common lambsquarters	56	20.9	37.5	2.4	4.2	0.2	15.0	45.0
Yellow foxtail	33	15.9	48.9	5.8	17.8	0.2	72.8	40.3
Russian thistle	35	10.8	31.0	1.2	3.5	0.2	14.6	25.3
Kochia	35	7.7	22.0	0.4	1.3	0.4	4.0	20.3
Field bindweed	21	8.6	41.1	1.2	5.8	0.8	18.6	18.4
Canada thistle	26	5.1	20.0	0.4	1.7	0.2	5.0	14.7
Quackgrass	9	3.8	41.2	2.2	23.3	0.6	85.2	12.0
Volunteer sunflower	16	4.8	29.3	0.4	2.5	0.4	11.0	11.2
Prostrate pigweed	19	2.7	14.4	0.2	0.9	0.2	2.2	9.3
Prostrate spurge	9	4.1	43.8	0.5	4.9	0.2	13.8	8.2
Field pennycress	14	1.7	12.5	0.1	0.8	0.4	1.4	6.7
Perennial sowthistle	12	2.0	17.0	0.2	1.7	0.2	4.0	6.3
Common cocklebur	12	1.5	13.0	0.1	1.0	0.4	2.8	5.6
Nightflowering catchfly	5	1.5	32.5	0.1	2.5	0.4	4.6	3.3
Wild rose	7	0.8	11.7	<0.1	0.6	0.4	0.8	3.2
Skeleton weed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Ragweed	5	0.2	5.0	<0.1	0.5	0.2	0.8	1.8
Hedge bindweed	5	0.2	5.0	<0.1	0.3	0.2	0.4	1.8
Clover	2	0.7	30.0	<0.1	1.4	1.4	1.4	1.5
Volunteer millet	2	0.6	25.0	<0.1	1.2	1.2	1.2	1.4
Barnyardgrass	2	0.3	15.0	0.1	2.6	2.6	2.6	1.3
Wild four-o'clock	2	0.3	15.0	<0.1	1.2	1.2	1.2	1.2
Common purslane	2	0.3	15.0	<0.1	1.2	1.2	1.2	1.2
Shepherdspurse	2	0.3	15.0	<0.1	0.6	0.6	0.6	1.2
Smartweed	2	0.2	10.0	<0.1	1.0	1.0	1.0	1.1
Flixweed	2	0.2	10.0	<0.1	0.4	0.4	0.4	1.0
Prickly lettuce	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Greenflower pepperweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Weed free	21	3.8	18.3	—	—	—	—	—

Table 13. North Dakota weed infestations in sunflower based on 335 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	92	60.7	66.0	25.0	27.1	0.2	389.2	149.6
Wild mustard	75	26.4	35.3	2.4	3.2	0.2	52.6	57.0
Yellow foxtail	50	18.0	36.1	4.9	9.8	0.2	153.0	46.1
Redroot pigweed	55	11.3	20.5	1.3	2.4	0.2	118.0	32.9
Wild buckwheat	53	11.0	20.7	0.8	1.5	0.2	18.6	30.5
Wild oats	40	11.4	28.4	1.4	3.6	0.2	30.4	28.0
Common lambsquarters	50	8.8	17.6	0.7	1.5	0.2	21.0	27.1
Canada thistle	29	4.4	14.9	0.5	1.9	0.2	14.2	15.4
Russian thistle	23	3.9	16.7	0.3	1.3	0.2	10.6	12.4
Kochia	22	3.7	17.0	0.3	1.3	0.2	12.6	11.8
Field bindweed	13	3.6	26.6	0.5	3.9	0.2	23.4	9.3
Prostrate spurge	17	2.6	15.4	0.2	1.1	0.2	7.6	8.6
Quackgrass	10	2.6	25.7	0.8	8.0	0.2	98.2	7.9
Prostrate pigweed	15	2.0	13.3	0.1	1.0	0.2	9.2	7.3
Ragweed	13	2.0	14.6	0.2	1.2	0.2	10.0	6.8
Field pennycress	12	2.2	18.7	0.2	2.1	0.2	27.6	6.6
Perennial sowthistle	12	1.3	10.7	0.1	1.0	0.2	4.6	5.7
Wild rose	11	1.0	9.7	0.1	0.8	0.2	3.8	4.8
Common purslane	10	1.2	12.3	0.1	1.0	0.2	7.8	4.6

Table 13 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Shepherdspurse	7	1.2	17.1	0.1	1.1	0.2	8.2	3.8
Common milkweed	7	0.7	9.6	0.1	0.8	0.2	3.4	3.1
Volunteer sunflower	5	0.7	15.6	<0.1	0.9	0.2	2.4	2.4
Common cocklebur	3	0.6	17.3	0.1	3.3	0.2	27.2	1.9
Dwarf mallow	3	0.4	11.8	<0.1	0.9	0.2	2.6	1.5
Smartweed	3	0.3	11.1	<0.1	1.0	0.2	2.0	1.3
Barnyardgrass	2	0.3	11.9	<0.1	2.0	0.2	8.6	1.2
Volunteer millet	1	0.4	29.0	0.1	3.8	0.4	9.6	1.1
Flixweed	2	0.3	19.2	<0.1	2.5	0.2	10.8	1.0
Nightflowering catchfly	2	0.3	12.9	<0.1	0.9	0.2	3.8	1.0
Greenflower pepperweed	1	0.3	23.0	<0.1	2.9	0.2	6.6	0.9
Skeleton weed	1	0.1	11.2	<0.1	0.8	0.2	2.0	0.6
Common dandelion	1	0.1	6.0	<0.1	0.4	0.2	1.0	0.6
Wild barley	1	0.2	27.5	0.1	14.0	0.6	27.4	0.6
Volunteer soybean	1	0.1	12.5	<0.1	0.9	0.2	2.4	0.6
Leafy spurge	1	0.2	26.7	<0.1	2.4	0.2	4.2	0.6
Yellow woodsorrel	1	0.1	7.0	<0.1	0.4	0.2	0.8	0.6
Fumitory	1	0.1	8.0	<0.1	0.4	0.2	1.0	0.6
Marshelder	1	0.2	20.0	<0.1	2.5	0.2	7.0	0.5
Volunteer alfalfa	1	0.2	37.5	<0.1	2.9	1.4	4.4	0.5
Clover	1	0.1	15.0	<0.1	0.7	0.6	0.8	0.4
Volunteer wheat	1	0.1	10.0	<0.1	0.7	0.6	0.8	0.4
Dock	1	0.1	8.3	<0.1	0.6	0.2	1.0	0.4
Volunteer corn	1	0.1	15.0	<0.1	1.1	0.2	2.0	0.3
Knotweeds	1	0.1	15.0	<0.1	0.6	0.2	1.0	0.3
Wild vetch	1	0.1	12.5	<0.1	0.5	0.2	0.8	0.3
Silver cinquefoil	<1	0.1	25.0	<0.1	1.4	1.4	1.4	0.2
Hedge bindweed	<1	0.1	25.0	<0.1	2.8	2.8	2.8	0.2
Horsetail	1	<0.1	7.5	<0.1	0.4	0.2	0.6	0.2
Volunteer rye	<1	0.1	20.0	<0.1	1.0	1.0	1.0	0.2
Large crabgrass	1	<0.1	7.5	<0.1	0.4	0.4	0.4	0.2
Waterpod	<1	0.1	25.0	<0.1	1.4	1.4	1.4	0.2
Roundleaf mallow	<1	<0.1	10.0	<0.1	0.4	0.4	0.4	0.1
Volunteer barley	<1	<0.1	5.0	<0.1	0.8	0.8	0.8	0.1
False chamomile	<1	<0.1	5.0	<0.1	0.4	0.4	0.4	0.1
Weed free	63	16.3	26.1	—	—	—	—	—

Table 14. The ten most abundant weeds in wheat, barley, oats, flax and sunflowers based on weed index in 1978 and 1979.

Weed ¹	Average of 1978 and 1979						1979			
	Wheat		Barley		Oats		Flax		Sunflowers	
	Weed index	Weed	Weed index	Weed	Weed index	Weed	Weed index	Weed	Weed index	
Grft	244.6	Grft	280.0	Grft	226.0	Grft	201.1	Grft	149.6	
Wioa	66.6	Wioa	72.4	Wibw	77.6	Wibw	64.1	Wimu	57.0	
Wibw	51.2	Wibw	67.7	Wioa	54.6	Wimu	52.8	Yeft	46.1	
Rrpw	47.8	Rrpw	34.4	Rrpw	42.0	Wioa	44.2	Rrpw	32.9	
Yeft	29.6	Colq	27.8	Colq	41.7	Rrpw	43.1	Wibw	30.5	
Colq	20.4	KOCZ	21.8	Ruth	33.6	Colq	36.0	Wioa	28.0	
Ruth	20.4	Yeft	21.6	Yeft	31.9	Yeft	30.4	Colq	27.1	
Wimu	17.3	Cath	17.0	Wimu	29.9	Ruth	23.8	Cath	15.4	
KOCZ	16.3	Wimu	14.4	KOCZ	18.0	KOCZ	21.5	Ruth	12.8	
Fibw	12.0	Pest	12.8	Fibw	14.8	Fibw	12.4	KOCZ	11.8	

¹Grft-Green Foxtail, Wioa-Wild Oat, Wibw-Wild Buckwheat, Rrpw-Redroot Pigweed, Yeft-Yellow Foxtail, Colq-Common Lambsquarters, Ruth-Russian Thistle, Wimu-Wild Mustard, KOCZ-Kochia, Fibw-Field Bindweed, Cath-Canada Thistle, and Pest-Perennial Sowthistle.

Table 15. Adams County weed infestations based on 15 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	80	58.3	72.9	36.8	46.0	0.4	156.0	170.8
Wild oats	87	61.7	71.2	16.3	18.8	3.0	40.8	128.6
Redroot pigweed	80	18.3	22.9	3.5	4.4	0.2	35.8	53.2
Wild buckwheat	53	16.0	30.0	1.7	3.2	0.2	7.2	37.6
Russian thistle	33	11.0	33.0	2.7	8.0	0.4	18.6	28.3
Volunteer sunflower	20	7.3	36.7	2.9	14.6	0.2	42.8	20.8
Kochia	33	7.7	23.0	0.9	2.6	0.2	6.8	20.8
Field bindweed	20	8.0	40.0	2.5	12.7	2.6	23.6	20.5
Green foxtail	7	4.3	65.0	1.4	20.4	20.4	20.4	9.7
Wild rose	13	1.7	12.5	0.3	2.5	1.4	3.6	6.9
Barnyardgrass	7	1.7	25.0	0.2	2.6	2.6	2.6	4.3
Perennial sowthistle	7	0.7	10.0	<0.1	0.6	0.6	0.6	3.0
Wild mustard	7	0.7	10.0	0.1	1.0	1.0	1.0	3.0
Prickly lettuce	7	0.7	10.0	<0.1	0.4	0.4	0.4	3.0
Common lambsquarters	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Weed free	27	5.3	20.0	—	—	—	—	—

Table 16. Barnes County weed infestations based on 48 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	87.5	87.5	84.5	84.5	6.6	221.2	318.1
Wild oats	56	16.1	28.7	3.6	6.4	0.2	44.6	43.3
Wild buckwheat	48	14.7	30.7	1.6	3.3	0.2	11.2	34.4
Redroot pigweed	25	7.3	29.2	0.9	3.7	0.4	16.2	17.8
Volunteer sunflower	25	6.7	26.7	1.1	4.6	0.2	30.2	17.7
Russian thistle	27	3.6	13.5	0.7	2.4	0.2	23.2	14.2
Kochia	25	4.2	16.7	0.5	1.8	0.2	8.2	13.6
Barnyardgrass	10	1.9	18.0	0.8	7.5	1.0	27.0	7.2
Common lambsquarters	13	2.2	17.5	0.3	2.4	0.2	9.4	7.0
Perennial sowthistle	13	1.5	11.7	0.3	2.1	0.2	4.4	6.2
Prostrate pigweed	10	2.1	20.0	0.2	2.4	0.2	5.2	6.1
Wild mustard	8	1.5	17.5	0.2	2.0	0.2	6.2	4.6
Canada thistle	8	1.0	12.5	0.2	2.1	0.6	3.8	4.2
Nightflowering catchfly	6	1.9	30.0	0.1	1.7	0.8	2.8	4.2
Wild barley	6	1.4	21.7	0.2	3.6	3.0	4.2	4.0
Common milkweed	4	1.0	25.0	0.1	2.7	1.8	3.6	2.7
Quackgrass	4	0.3	7.5	<0.1	0.8	0.6	1.0	1.8
Wild rose	4	0.3	7.5	<0.1	0.6	0.2	1.0	1.8
Prickly lettuce	2	0.2	10.0	<0.1	1.6	1.6	1.6	1.0
Wild mint	2	0.2	10.0	<0.1	0.4	0.4	0.4	0.9
Field bindweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Hedge bindweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8

Table 17. Benson County weed infestations based on 38 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	96.6	96.6	82.0	82.0	3.2	352.8	321.2
Redroot pigweed	87	45.5	52.4	7.9	9.0	0.2	52.2	92.8
Wild oats	84	46.4	55.2	6.9	8.2	0.2	33.8	90.7
Wild buckwheat	84	46.8	55.6	4.0	4.7	0.6	11.8	84.2
Russian thistle	58	21.2	36.6	5.1	8.8	0.2	45.2	52.4
Common lambsquarters	42	20.0	47.5	2.6	6.1	0.2	30.2	40.1
Kochia	39	14.9	37.7	1.8	4.5	0.4	18.4	32.2
Nightflowering catchfly	34	13.6	39.6	1.7	4.9	0.2	19.2	28.8

Table 17 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild mustard	29	12.5	43.2	1.6	5.6	0.6	21.4	25.9
Yellow foxtail	3	2.2	85.0	2.9	108.4	108.4	108.4	9.8
Roundleaf mallow	8	2.1	26.7	0.2	3.1	0.2	5.8	5.3
Canada thistle	8	1.4	18.3	0.2	2.6	1.2	3.6	4.6
Flixweed	5	1.6	30.0	0.1	2.3	2.2	2.4	3.6
Prostrate pigweed	3	1.7	65.0	0.1	4.4	4.4	4.4	2.9
Quackgrass	3	1.3	50.0	0.3	10.0	10.0	10.0	2.8
Wild rose	5	0.8	15.0	0.1	1.6	0.4	2.8	2.7
Skeleton weed	3	1.3	50.0	0.1	5.0	5.0	5.0	2.5
Downy brome	3	0.8	30.0	0.1	3.6	3.6	3.6	1.9
Perennial sowthistle	3	0.4	15.0	<0.1	0.8	0.8	0.8	1.3
Barnyardgrass	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0

Table 18. Billings County weed infestations based on 5 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	80	60.0	75.0	17.1	21.4	5.6	33.0	126.6
Wild buckwheat	80	17.0	21.2	1.6	1.9	0.4	4.6	47.3
Wild oats	60	11.0	18.3	1.0	1.7	0.2	3.4	33.4
Common lambsquarters	40	11.0	27.5	0.8	2.1	0.6	3.6	26.3
Russian thistle	40	3.0	7.5	0.1	0.3	0.2	0.4	16.6
Volunteer sunflower	20	5.0	25.0	0.4	1.8	1.8	1.8	12.5
Common purslane	20	2.0	10.0	0.2	0.8	0.8	0.8	9.0
Common chickweed	20	2.0	10.0	0.2	0.8	0.8	0.8	9.0
Redroot pigweed	20	2.0	10.0	0.1	0.4	0.4	0.4	8.9
Yellow foxtail	20	1.0	5.0	0.1	0.6	0.6	0.6	7.9
Quackgrass	20	1.0	5.0	0.1	0.4	0.4	0.4	7.9
Skeleton weed	20	1.0	5.0	<0.1	0.2	0.2	0.2	7.8
Weed free	80	23.0	28.7	—	—	—	—	—

Table 19. Bottineau County weed infestations based on 44 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	100.0	100.0	30.3	30.3	13.2	49.0	204.0
Wild oats	100	91.9	91.9	20.9	20.9	2.6	94.8	174.0
Kochia	64	45.2	71.1	5.0	7.9	0.2	44.2	78.1
Perennial sowthistle	59	39.0	66.0	3.2	5.3	2.2	12.0	66.0
Canada thistle	45	27.7	61.0	2.1	4.5	1.0	9.2	47.7
Common lambsquarters	34	24.1	70.7	1.9	5.7	2.0	11.2	40.0
Wild mustard	36	18.3	50.3	1.2	3.3	1.2	8.6	33.2
Volunteer sunflower	30	15.6	52.7	1.0	3.4	1.6	8.2	27.7
Russian thistle	27	15.1	55.4	1.5	5.4	1.4	19.8	27.7
Field bindweed	25	15.0	60.0	1.1	4.3	1.4	9.0	25.9
Redroot pigweed	20	15.9	77.8	1.2	5.8	3.0	8.8	25.5
Quackgrass	9	8.0	87.5	1.0	10.5	3.6	18.4	13.2
Wild buckwheat	5	3.5	77.5	0.5	10.0	3.6	16.4	6.1
Volunteer barley	5	2.8	62.5	0.4	8.1	7.6	8.6	5.2
Barnyardgrass	2	2.3	100.0	0.3	12.6	12.6	12.6	3.7
Smartweed	2	1.6	70.0	0.2	9.4	9.4	9.4	2.8

Table 20. Bowman County weed infestations based on 15 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	87	54.0	62.3	25.5	29.4	0.2	94.2	142.3
Wild oats	80	43.3	54.2	13.1	16.4	0.2	54.8	100.6
Wild buckwheat	73	42.0	57.3	7.3	10.0	0.4	31.0	83.6
Redroot pigweed	67	24.0	36.0	5.5	8.3	0.6	58.6	59.1
Russian thistle	47	9.3	20.0	0.9	1.9	0.2	8.4	26.9
Volunteer sunflower	40	10.3	25.8	0.6	1.5	0.2	4.2	25.1
Common cocklebur	20	6.7	33.3	2.0	9.8	0.2	26.4	17.9
Kochia	33	5.0	15.0	0.5	1.6	0.2	3.6	17.4
Barnyardgrass	13	3.3	25.0	1.2	8.8	0.6	17.0	10.5
Common lambsquarters	13	2.0	15.0	0.1	0.6	0.4	0.8	6.6
Wild mustard	7	3.3	50.0	0.4	6.2	6.2	6.2	6.5
Common purslane	13	1.3	10.0	0.1	0.4	0.4	0.4	5.9
Canada thistle	13	1.0	7.5	0.1	0.8	0.4	1.2	5.7
Prickly lettuce	13	1.0	7.5	<0.1	0.3	0.2	0.4	5.5
Volunteer tame oats	13	0.7	5.0	<0.1	0.3	0.2	0.4	5.2
Horsetail	7	0.7	10.0	0.1	0.8	0.8	0.8	3.0
Green foxtail	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Prostrate pigweed	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Common dandelion	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Nightflowering catchfly	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Weed free	33	5.7	17.0	—	—	—	—	—

Table 21. Burke County weed infestations based on 21 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	95	64.0	67.2	5.9	6.2	0.4	15.2	109.7
Redroot pigweed	43	16.7	38.9	2.6	6.1	0.2	21.6	37.0
Wild buckwheat	33	7.4	22.1	0.4	1.2	0.2	2.6	19.4
Kochia	29	6.9	24.2	0.4	1.2	0.2	2.8	17.3
Wild mustard	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Wild oats	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	81	25.7	31.8	—	—	—	—	—

Table 22. Burleigh County weed infestations based on 26 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.5	95.5	21.1	21.1	4.4	44.0	178.1
Wild buckwheat	88	64.2	72.6	9.5	10.8	3.2	25.8	115.9
Wild oats	38	18.3	47.5	1.7	4.5	1.6	6.2	35.1
Perennial sowthistle	23	9.0	39.2	0.8	3.3	1.8	5.4	18.5
Muskthistle	4	1.5	40.0	0.1	3.0	3.0	3.0	3.1

Table 23. Cass County weed infestations based on 39 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	67.3	67.3	4.7	4.7	1.4	16.8	111.5
Redroot pigweed	85	50.0	59.1	3.4	4.1	0.8	6.8	86.2
Yellow foxtail	59	24.1	40.9	2.0	3.3	0.4	28.8	48.4
Wild oats	82	18.1	22.0	0.9	1.2	0.2	3.8	47.6
Common lambsquarters	69	12.4	18.0	0.7	1.0	0.2	4.4	37.2
Kochia	74	8.7	11.7	0.4	0.6	0.2	4.2	34.5
Ragweed	59	10.5	17.8	0.6	1.0	0.2	5.4	31.6
Russian thistle	49	5.6	11.6	0.4	0.8	0.2	10.2	22.8
Wild buckwheat	8	1.2	15.0	0.1	1.0	0.2	2.6	3.9
Marshelder	3	0.8	30.0	<0.1	1.8	1.8	1.8	1.7
Common milkweed	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Volunteer sunflower	3	0.1	5.0	<0.1	0.4	0.4	0.4	1.0
Garrison creeping foxtail	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0

Table 24. Cavalier County weed infestations based on 46 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	97.9	97.9	63.8	63.8	9.4	166.6	280.2
Wild oats	80	44.1	54.9	9.2	11.4	0.4	63.0	92.3
Wild buckwheat	93	47.2	50.5	4.4	4.7	0.2	28.2	88.5
Redroot pigweed	65	37.1	56.8	5.3	8.2	0.4	45.0	71.2
Nightflowering catchfly	54	22.7	41.8	2.9	5.4	0.4	23.8	47.7
Common lambsquarters	39	14.3	36.7	1.2	3.1	0.4	10.0	30.2
Russian thistle	22	8.7	40.0	1.7	7.9	0.2	31.4	19.9
Wild mustard	24	9.2	38.6	0.8	3.4	0.4	9.6	19.1
Smartweed	13	7.2	55.0	1.0	7.7	0.8	21.0	13.9
Canada thistle	17	5.0	28.7	0.5	2.9	0.8	10.6	12.0
Sandbur	15	4.7	30.7	0.5	3.3	0.2	15.6	10.9
Prostrate pigweed	7	3.8	58.3	0.8	12.0	2.4	29.4	7.8
Kochia	9	2.0	22.5	0.1	1.3	0.2	2.2	5.1
Barnyardgrass	2	1.8	85.0	0.6	27.4	27.4	27.4	4.0
Common cocklebur	2	1.2	55.0	0.1	5.2	5.2	5.2	2.2
Skeleton weed	2	0.8	35.0	<0.1	1.8	1.8	1.8	1.6
Common chickweed	2	0.8	35.0	0.1	3.2	3.2	3.2	1.6
Quackgrass	2	0.4	20.0	0.1	5.0	5.0	5.0	1.4
Wild rose	2	0.4	20.0	<0.1	1.0	1.0	1.0	1.2
Perennial sowthistle	2	0.3	15.0	<0.1	0.8	0.8	0.8	1.1
Volunteer sunflower	2	0.2	10.0	<0.1	0.4	0.4	0.4	1.0
Roundleaf mallow	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Weed free	2	0.5	25.0	—	—	—	—	—

Table 25. Dickey County weed infestations based on 29 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	91.8	91.8	40.6	40.6	7.4	136.8	286.5
Wild buckwheat	90	54.3	60.6	12.3	13.8	0.2	62.0	113.0
Common lambsquarters	79	32.9	41.5	6.9	8.7	0.6	76.4	75.5
Wild oats	76	29.7	39.1	4.8	6.3	1.6	28.0	66.1
Kochia	31	22.1	71.1	10.4	33.5	3.2	99.6	56.7
Canada thistle	17	9.0	52.0	1.4	8.0	2.4	13.0	17.9
Redroot pigweed	17	5.5	32.0	0.5	2.8	1.4	4.8	12.4
Wild geranium	10	2.1	20.0	0.3	2.7	0.2	7.0	6.2
Wild barley	10	1.9	18.3	0.1	1.4	1.4	1.4	5.7
Barnyardgrass	7	2.1	30.0	0.5	6.8	6.4	7.2	5.5

Table 25 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Prostrate pigweed	3	2.4	70.0	0.5	15.0	15.0	15.0	4.8
Perennial sowthistle	7	1.7	25.0	0.2	2.7	0.6	4.8	4.5
Wild mustard	7	0.7	10.0	0.1	0.8	0.4	1.2	3.1
Silver cinquefoil	3	1.2	35.0	0.1	2.6	2.6	2.6	2.6
Ragweed	3	0.3	10.0	<0.1	1.0	1.0	1.0	1.6
Weed free	3	0.2	5.0	—	—	—	—	—

Table 26. Divide County weed infestations based on 22 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	74.1	74.1	8.6	8.6	1.0	27.4	127.6
Wild buckwheat	50	10.7	21.4	0.7	1.4	0.2	8.4	28.9
Redroot pigweed	50	9.8	19.5	0.6	1.1	0.2	2.6	27.8
Wild oats	9	3.4	37.5	0.4	4.6	0.8	8.4	7.4
Field bindweed	9	2.5	27.5	0.1	1.5	0.4	2.6	5.8
Kochia	5	0.7	15.0	<0.1	0.8	0.8	0.8	2.3
Nightflowering catchfly	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	64	17.5	27.5	—	—	—	—	—

Table 27. Dunn County weed infestations based on 16 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	81	49.1	60.4	17.7	21.8	0.4	78.2	117.4
Wild oats	100	35.3	35.3	7.7	7.7	0.2	54.6	86.6
Redroot pigweed	81	23.4	28.8	2.2	2.7	0.6	7.0	55.7
Wild buckwheat	44	6.3	14.3	0.4	1.0	0.2	2.0	21.8
Kochia	44	4.7	10.7	0.3	0.7	0.2	2.2	19.9
Common lambsquarters	38	5.6	15.0	0.4	1.1	0.2	5.0	19.1
Wild mustard	19	3.7	20.0	0.4	2.3	0.2	6.6	11.0
Yellow foxtail	25	1.9	7.5	0.2	0.8	0.2	1.2	10.6
Russian thistle	19	3.1	16.7	0.3	1.7	0.2	4.2	10.1
Common cocklebur	13	0.9	7.5	0.1	0.5	0.2	0.8	5.3
Wild rose	6	2.5	40.0	0.3	5.0	5.0	5.0	5.3
Skeleton weed	6	0.9	15.0	0.1	1.0	1.0	1.0	3.2
Perennial sowthistle	6	0.6	10.0	<0.1	0.6	0.6	0.6	2.8
Common purslane	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.4
Quackgrass	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.4
Weed free	63	20.3	32.5	—	—	—	—	—

Table 28. Eddy County weed infestations based on 14 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	89.4	89.4	27.2	27.2	6.8	47.4	186.2
Wild buckwheat	71	47.5	66.5	7.6	10.6	4.4	16.6	89.0
Perennial sowthistle	57	25.7	45.0	2.7	4.8	2.0	7.6	51.2
Wild oats	43	18.2	42.5	2.1	4.8	3.8	5.8	37.3
Common lambsquarters	14	5.7	40.0	0.6	4.5	3.2	5.8	12.0
Russian thistle	14	4.6	32.5	0.3	2.3	2.0	2.6	10.2

Table 29. Emmons County weed infestations based on 31 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	106	97.6	91.7	55.5	52.2	0.2	376.4	262.6
Russian thistle	94	42.4	45.3	9.2	9.8	0.2	51.8	95.1
Wild buckwheat	94	46.0	49.1	4.9	5.3	0.2	33.2	88.7
Field bindweed	58	23.9	41.1	5.6	9.6	0.4	36.0	56.3
Common lambsquarters	81	18.9	23.4	1.4	1.7	0.2	6.0	49.0
Wild mustard	58	21.3	36.7	2.1	3.6	0.2	15.0	45.6
Redroot pigweed	77	13.1	16.9	1.7	2.1	0.2	31.8	42.7
Yellow foxtail	55	16.5	30.0	3.0	5.5	0.2	19.2	41.7
Wild oats	58	18.2	31.4	1.4	2.4	0.2	10.8	40.9
Volunteer sunflower	39	6.3	16.2	0.4	1.0	0.2	4.4	20.1
Ragweed	13	2.9	22.5	0.4	3.3	0.8	9.8	8.2
Wild rose	13	1.9	15.0	0.2	1.3	0.2	2.6	6.6
Skeleton weed	6	1.6	25.0	0.5	8.0	1.4	14.6	5.0
Kochia	10	1.5	15.0	0.1	0.7	0.2	1.0	4.8
Prostrate pigweed	10	0.6	6.7	<0.1	0.4	0.2	0.6	4.0
Hedge bindweed	6	0.6	10.0	<0.1	0.5	0.4	0.6	2.9
Horseweed	3	1.1	35.0	0.1	3.6	3.6	3.6	2.5
Prickly lettuce	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.5
Common cocklebur	3	0.5	15.0	<0.1	1.4	1.4	1.4	1.7
Perennial sowthistle	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.4
Canada thistle	3	0.2	5.0	0.1	2.0	2.0	2.0	1.4
Barnyardgrass	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3
Field pennycress	3	0.2	5.0	<0.1	0.6	0.6	0.6	1.3
Weed free	6	0.3	5.0	—	—	—	—	—

Table 30. Foster County weed infestations based on 19 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.0	95.0	27.6	27.6	8.4	46.2	192.7
Wild buckwheat	63	45.0	71.2	6.3	10.0	3.4	21.6	80.7
Perennial sowthistle	47	19.2	40.6	1.6	3.4	1.4	5.6	38.7
Common lambsquarters	37	13.9	37.9	1.0	2.8	1.4	4.0	28.6
Wild oats	32	14.5	45.8	1.5	4.8	0.4	8.2	28.5

Table 31. Golden Valley County weed infestations based on 9 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	63.9	63.9	29.8	29.8	7.0	62.4	166.9
Wild oats	89	36.7	41.2	4.2	4.7	0.8	8.4	76.0
Redroot pigweed	89	22.8	25.6	1.5	1.7	0.4	6.0	56.0
Wild buckwheat	56	19.4	35.0	3.4	6.2	0.4	13.2	45.9
Kochia	44	2.8	6.3	0.1	0.3	0.2	0.6	17.9
Russian thistle	33	2.8	8.3	0.2	0.6	0.2	1.4	14.4
Volunteer sunflower	22	5.6	25.0	0.5	2.1	1.8	2.4	14.1
Field bindweed	11	6.1	55.0	1.6	14.0	14.0	14.0	13.4
Common lambsquarters	22	1.1	5.0	<0.1	0.2	0.2	0.2	8.6
Wild rose	11	1.1	10.0	0.1	1.2	1.2	1.2	5.1
Yellow foxtail	11	1.1	10.0	<0.1	0.4	0.4	0.4	4.9
Skeleton weed	11	0.6	5.0	<0.1	0.2	0.2	0.2	4.3
Weed free	78	20.0	25.7	—	—	—	—	—

Table 32. Grand Forks County weed infestations based on 47 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.1	95.1	103.5	103.5	2.6	392.0	369.9
Wild oats	89	37.7	42.1	6.4	7.1	0.2	57.0	82.3
Kochia	47	13.3	28.4	1.9	4.2	0.2	23.4	33.4
Redroot pigweed	47	12.2	26.1	1.0	2.2	0.2	8.2	30.2
Wild buckwheat	49	10.0	20.4	0.7	1.5	0.2	12.0	28.0
Prostrate pigweed	23	3.2	13.6	0.2	1.0	0.2	3.8	11.5
Russian thistle	19	1.9	10.0	0.1	0.6	0.2	2.8	8.6
Prickly lettuce	11	2.7	25.0	0.3	2.9	1.2	5.2	6.9
Volunteer sunflower	11	1.4	13.0	0.1	0.6	0.2	1.2	5.1
Barnyardgrass	9	0.9	10.0	0.1	1.1	0.4	2.4	3.9
Common lambsquarters	6	1.3	20.0	0.1	1.2	0.2	1.8	3.6
Canada thistle	6	0.3	5.0	0.1	1.5	0.2	3.0	2.7
Yellow foxtail	2	1.3	60.0	0.2	11.4	11.4	11.4	2.6
Common milkweed	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.5
Nightflowering catchfly	4	0.5	12.5	<0.1	0.6	0.6	0.6	2.0
Smartweed	2	0.7	35.0	0.1	4.0	4.0	4.0	1.7
Quackgrass	2	0.2	10.0	<0.1	1.2	1.2	1.2	1.0
Wild rose	2	0.2	10.0	<0.1	1.0	1.0	1.0	1.0
Field pennycress	2	0.2	10.0	<0.1	0.4	0.4	0.4	0.9
Wild mustard	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Clover	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Knotweeds	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Dock	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8

Table 33. Grant County weed infestations based on 19 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.0	95.0	41.1	41.1	8.6	95.8	224.3
Field bindweed	68	24.5	35.8	6.7	9.9	0.6	39.2	63.0
Wild oats	58	27.1	46.8	4.8	8.3	0.2	29.4	57.6
Wild buckwheat	74	25.3	34.3	2.8	3.8	0.2	20.2	56.4
Russian thistle	63	21.1	33.3	3.3	5.3	0.2	24.6	49.9
Redroot pigweed	79	16.8	21.3	1.5	2.0	0.2	10.8	46.8
Volunteer sunflower	37	10.5	28.6	1.1	3.1	0.2	13.0	25.4
Common lambsquarters	47	6.3	13.3	0.4	0.9	0.2	3.6	23.1
Common cocklebur	11	5.5	52.5	0.8	7.5	3.4	11.6	10.9
Kochia	21	2.1	10.0	0.1	0.6	0.4	1.4	9.4
Wild mustard	16	1.8	11.7	0.1	0.7	0.2	1.0	7.4
Prostrate pigweed	16	1.1	6.7	0.1	0.4	0.2	0.6	6.5
Yellow foxtail	11	2.1	20.0	0.2	1.7	0.4	3.0	6.0
Prickly lettuce	11	1.3	12.5	0.1	0.7	0.6	0.8	5.0
Wild rose	5	1.8	35.0	0.4	8.0	8.0	8.0	4.6
Ragweed	11	0.8	7.5	0.1	0.5	0.2	0.8	4.4
Common milkweed	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.4

Table 34. Griggs County weed infestations based on 20 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	95	94.7	99.7	141.1	148.6	22.6	342.4	455.7
Wild oats	60	29.7	49.6	7.5	12.6	1.4	87.8	67.3
Wild buckwheat	70	22.7	32.5	2.1	3.0	0.4	9.6	50.9
Barnyardgrass	10	10.0	100.0	7.1	71.3	26.4	116.2	30.0
Russian thistle	55	6.0	10.9	0.3	0.5	0.2	1.6	25.0
Common lambsquarters	20	6.5	32.5	5.0	24.8	0.2	98.0	24.8

Table 34 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Redroot pigweed	35	7.2	20.7	0.4	1.2	0.2	3.8	19.9
Nightflowering catchfly	15	7.5	50.0	0.7	4.5	0.4	10.6	14.1
Canada thistle	20	4.7	23.7	1.0	5.2	0.2	14.2	13.8
Clover	20	4.0	20.0	0.3	1.7	0.4	4.4	11.5
Wild mustard	10	4.7	47.5	1.1	10.7	0.8	20.6	10.6
Kochia	10	1.7	17.5	0.2	2.0	1.0	3.0	5.5
Volunteer sunflower	10	1.2	12.5	0.1	0.6	0.2	1.0	4.7
Quackgrass	10	0.7	7.5	0.1	1.2	0.2	2.2	4.4
Common milkweed	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Horseweed	5	0.7	15.0	0.2	3.8	3.8	3.8	2.9
Perennial sowthistle	5	0.7	15.0	0.1	2.2	2.2	2.2	2.7
Western snowberry	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.2
Wild rose	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Wild mint	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9

Table 35. Hettinger County weed infestations based on 20 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	85	58.5	68.8	30.4	35.8	0.2	91.6	157.8
Wild oats	90	40.7	45.3	11.1	12.4	0.2	66.6	96.7
Redroot pigweed	80	24.7	30.9	4.8	6.0	0.2	26.6	62.6
Wild buckwheat	80	22.0	27.5	2.7	3.4	0.2	12.4	55.0
Volunteer sunflower	30	12.7	42.5	3.5	11.6	0.4	40.8	30.9
Russian thistle	25	4.0	16.0	0.6	2.2	0.4	4.4	13.6
Common lambsquarters	20	1.5	7.5	0.1	0.3	0.2	0.4	8.3
Kochia	20	1.2	6.3	0.1	0.3	0.2	0.6	8.1
Green foxtail	10	2.5	25.0	0.5	4.6	0.4	8.8	6.9
Perennial sowthistle	15	1.2	8.3	<0.1	0.3	0.2	0.6	6.4
Common purslane	5	2.0	40.0	0.6	11.6	11.6	11.6	5.0
Field bindweed	10	0.7	7.5	0.2	1.9	0.6	3.2	4.5
Wild rose	5	1.2	25.0	0.5	10.0	10.0	10.0	4.1
Common chickweed	5	0.7	15.0	0.3	6.4	6.4	6.4	3.2
Barnyardgrass	5	0.5	10.0	0.4	8.2	8.2	8.2	3.1
Skeleton weed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Weed free	45	9.5	21.1	—	—	—	—	—

Table 36. Kidder County weed infestations based on 5 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild buckwheat	100	100.0	100.0	20.4	20.4	16.8	26.8	180.9
Green foxtail	100	81.5	81.5	14.2	14.2	1.8	42.0	148.0
Wild oats	60	16.0	26.7	1.0	1.6	0.8	2.6	38.2
Canada thistle	40	12.0	30.0	0.7	1.7	1.0	2.4	26.9
Common lambsquarters	20	5.0	25.0	0.3	1.6	1.6	1.6	12.4
Perennial sowthistle	20	2.0	10.0	0.1	0.4	0.4	0.4	8.9

Table 37. Lamoure County weed infestations based on 33 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild buckwheat	103	98.9	96.0	19.4	18.8	0.2	39.0	178.5
Green foxtail	100	84.7	84.7	24.5	24.5	1.8	127.8	175.2
Canada thistle	42	20.9	49.3	1.5	3.5	0.8	8.6	38.5
Wild oats	36	13.8	37.9	1.0	2.6	1.4	4.6	28.1
Perennial sowthistle	30	11.5	38.0	0.9	2.9	0.6	7.8	23.6
Common lambsquarters	30	11.4	37.5	0.8	2.6	0.4	5.2	23.3
Muskthistle	33	8.6	25.9	0.6	1.7	0.4	4.8	21.0
Kochia	12	3.6	30.0	0.3	2.3	0.6	6.2	8.3
Wild geranium	12	2.6	21.2	0.1	1.1	0.6	2.2	6.9
Russian thistle	6	1.1	17.5	0.1	0.9	0.8	1.0	3.2
Prostrate pigweed	3	0.5	15.0	<0.1	0.6	0.6	0.6	1.5
Redroot pigweed	3	0.5	15.0	<0.1	0.8	0.8	0.8	1.5

Table 38. Logan County weed infestations based on 19 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	93.6	93.6	22.1	22.1	2.4	67.4	178.5
Wild buckwheat	89	81.6	91.2	13.8	15.4	4.4	26.2	143.6
Canada thistle	32	16.6	52.5	1.5	4.7	3.0	6.6	30.6
Wild oats	37	10.0	27.1	0.6	1.6	0.2	3.2	23.7
Common lambsquarters	26	7.6	29.0	0.6	2.2	0.4	4.0	17.7
Kochia	16	9.2	58.3	0.9	5.6	1.8	10.4	16.5
Russian thistle	21	5.5	26.2	0.3	1.3	1.0	1.8	13.2
Wild geranium	11	1.6	15.0	0.1	0.8	0.6	1.0	5.3
Redroot pigweed	11	1.1	10.0	0.1	0.7	0.4	1.0	4.7

Table 39. McHenry County weed infestations based on 32 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	93.8	93.8	17.1	17.1	2.4	45.0	167.0
Wild oats	88	77.7	88.7	12.9	14.8	4.2	41.6	136.9
Wild buckwheat	34	23.7	69.1	2.4	6.9	2.8	20.8	40.8
Russian thistle	41	16.9	41.5	2.2	5.4	0.2	39.0	35.5
Bromegrass	31	15.6	50.0	2.4	7.6	2.6	41.8	31.6
Volunteer sunflower	47	7.5	16.0	0.4	0.8	0.2	3.0	24.0
Canada thistle	28	12.7	45.0	0.8	2.8	0.8	5.2	23.9
Kochia	25	11.6	46.2	0.8	3.1	1.4	6.2	21.7
Wild mustard	25	9.7	38.7	0.6	2.5	0.4	5.0	19.5
Perennial sowthistle	19	7.2	38.3	0.6	3.2	0.8	5.4	14.8
Smartweed	6	6.3	100.0	1.1	18.1	13.0	23.2	11.0
Common lambsquarters	6	5.2	82.5	1.6	25.9	5.6	46.2	11.0
Quackgrass	9	5.6	60.0	0.8	8.7	3.2	15.6	10.7
Needle & thread	9	5.6	60.0	0.5	5.7	2.6	11.0	10.0
Redroot pigweed	13	4.1	32.5	0.3	2.1	1.2	3.2	8.9
Ragweed	6	3.6	57.5	0.5	7.7	1.6	13.8	6.8
Common purslane	3	1.7	55.0	0.1	4.0	4.0	4.0	3.1
Downy brome	3	1.2	40.0	0.1	2.2	2.2	2.2	2.5
Volunteer barley	3	0.8	25.0	0.2	5.2	5.2	5.2	2.2
Prostrate pigweed	3	0.9	30.0	<0.1	1.4	1.4	1.4	2.1
Barnyardgrass	3	0.5	15.0	<0.1	0.8	0.8	0.8	1.6

Table 40. McIntosh County weed infestations based on 25 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	87.2	87.2	25.6	25.6	0.6	126.0	180.3
Wild buckwheat	56	44.0	78.6	8.9	15.9	2.4	38.6	83.4
Common lambsquarters	76	38.6	50.8	4.0	5.3	0.6	13.2	73.3
Wild oats	48	14.4	30.0	1.2	2.6	0.6	7.6	33.3
Canada thistle	20	16.6	83.0	2.2	10.8	6.0	15.6	28.3
Russian thistle	28	12.2	43.6	1.3	4.5	0.4	15.2	24.5
Kochia	16	6.6	41.2	0.5	3.0	1.6	3.8	13.1
Wild geranium	12	2.4	20.0	0.1	1.2	1.2	1.2	6.7
Redroot pigweed	4	0.8	20.0	<0.1	1.0	1.0	1.0	2.2

Table 41. McKenzie County weed infestations based on 19 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	79	33.4	42.3	4.3	5.4	0.2	22.6	69.7
Redroot pigweed	58	23.9	41.4	3.6	6.3	0.2	22.4	51.7
Kochia	47	19.7	41.7	2.5	5.3	0.2	18.6	41.3
Wild buckwheat	47	12.4	26.1	0.8	1.7	0.2	7.2	30.0
Wild mustard	42	10.0	23.7	0.5	1.2	0.2	2.4	25.2
Wild oats	21	7.6	36.2	0.8	3.7	0.4	9.0	16.5
Prostrate pigweed	32	3.7	11.7	0.3	0.8	0.2	2.6	14.8
Field bindweed	16	4.5	28.3	0.5	3.2	0.2	9.2	10.9
Canada thistle	5	0.8	15.0	0.1	2.0	2.0	2.0	2.8
Yellow foxtail	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	68	25.8	37.7	—	—	—	—	—

Table 42. McLean County weed infestations based on 44 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	93.6	93.6	46.8	46.8	5.2	161.0	236.2
Wild oats	84	29.9	35.5	5.7	6.8	0.2	50.4	71.2
Redroot pigweed	86	23.1	26.7	1.9	2.2	0.2	12.6	56.3
Wild buckwheat	57	16.7	29.4	1.6	2.8	0.2	15.4	39.3
Common lambsquarters	36	7.0	19.4	0.9	2.5	0.2	21.8	21.3
Russian thistle	36	6.9	19.1	0.5	1.3	0.2	6.2	20.1
Kochia	16	4.0	25.0	0.3	1.8	0.2	5.2	10.0
Field bindweed	18	2.4	13.1	0.5	2.6	1.6	3.8	9.6
Yellow foxtail	2	2.2	95.0	1.5	64.0	64.0	64.0	6.3
Prostrate pigweed	11	2.2	19.0	0.1	1.2	0.2	3.6	6.3
Wild mustard	9	0.6	6.3	<0.1	0.4	0.2	0.8	3.7
Canada thistle	7	0.5	6.7	<0.1	0.3	0.2	0.4	2.8
Field pennycress	7	0.5	6.7	<0.1	0.3	0.2	0.4	2.8
Common milkweed	7	0.3	5.0	<0.1	0.4	0.2	0.6	2.7
Ragweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Common cocklebur	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Weed free	18	2.6	14.4	—	—	—	—	—

Table 43. Mercer County weed infestations based on 11 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	90.0	90.0	34.4	34.4	3.4	122.4	203.6
Wild buckwheat	82	40.5	49.4	3.9	4.7	0.8	11.2	76.8
Redroot pigweed	73	14.5	20.0	1.1	1.5	0.2	5.8	41.4
Wild oats	55	15.9	29.2	1.8	3.3	0.4	8.8	38.3
Russian thistle	55	13.6	25.0	1.1	2.1	0.2	5.8	34.4
Wild mustard	27	9.1	33.3	1.2	4.3	0.2	11.0	20.9
Common lambsquarters	36	6.8	18.8	0.7	2.0	0.2	7.4	20.7
Field bindweed	18	1.8	10.0	0.1	0.6	0.2	1.0	8.1
Yellow foxtail	9	4.1	45.0	0.4	4.2	4.2	4.2	8.0
Prostrate pigweed	9	1.4	15.0	0.1	1.6	1.6	1.6	4.7
Field pennycress	9	0.5	5.0	<0.1	0.4	0.4	0.4	3.6
Volunteer sunflower	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.5
Weed free	9	1.8	20.0	—	—	—	—	—

Table 44. Morton County weed infestations based on 20 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	88.5	88.5	48.9	48.9	1.8	131.4	236.0
Wild buckwheat	100	40.5	40.5	3.3	3.3	0.2	8.8	81.6
Wild oats	70	36.5	52.1	7.1	10.2	0.2	59.2	76.5
Field bindweed	50	24.2	48.5	7.7	15.4	0.2	35.8	58.9
Redroot pigweed	75	19.7	26.3	2.9	3.9	0.2	33.2	51.5
Russian thistle	45	16.7	37.2	2.3	5.2	0.4	15.4	37.2
Common lambsquarters	45	11.2	25.0	1.3	2.8	0.2	12.2	29.2
Wild mustard	40	9.2	23.1	0.8	2.1	0.2	10.6	24.5
Yellow foxtail	20	2.7	13.7	0.2	1.0	0.2	3.6	9.9
Prostrate pigweed	15	1.7	11.7	0.2	1.6	0.4	3.6	7.3
Volunteer sunflower	15	1.2	8.3	<0.1	0.3	0.2	0.4	6.4
Common cocklebur	15	1.0	6.7	<0.1	0.3	0.2	0.4	6.1
Wild rose	10	1.7	17.5	0.2	2.1	0.8	3.4	5.6
Barnyardgrass	5	1.7	35.0	0.1	2.8	2.8	2.8	3.7
Field pennycress	5	1.2	25.0	0.2	4.0	4.0	4.0	3.4
Ragweed	5	1.2	25.0	<0.1	1.0	1.0	1.0	3.0
Prickly lettuce	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.2
Kochia	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.2
Common milkweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Weed free	15	2.5	16.7	—	—	—	—	—

Table 45. Mountrail County weed infestations based on 28 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	52.5	52.5	6.3	6.3	0.4	20.6	100.5
Redroot pigweed	61	17.1	28.2	1.8	3.0	0.2	22.0	41.6
Wild buckwheat	46	12.5	26.9	0.9	1.9	0.2	10.0	30.0
Wild mustard	32	10.2	31.7	0.8	2.4	0.2	6.4	22.7
Wild oats	29	3.2	11.2	0.3	1.0	0.2	3.0	13.4
Field bindweed	11	1.1	10.0	<0.1	0.4	0.2	0.6	4.7
Prostrate pigweed	4	0.5	15.0	<0.1	0.6	0.6	0.6	1.8
Waterleaf	4	0.2	5.0	<0.1	0.2	0.2	0.2	1.4
Kochia	4	0.2	5.0	<0.1	0.4	0.4	0.4	1.4
Weed free	79	26.4	33.6	—	—	—	—	—

Table 46. Nelson County weed infestations based on 31 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	89.2	89.2	33.5	33.5	0.4	100.8	200.6
Wild oats	71	29.7	41.8	5.0	7.0	0.6	40.6	65.0
Redroot pigweed	61	9.4	15.3	0.8	1.3	0.2	6.0	31.7
Kochia	35	6.1	17.3	0.7	2.1	0.2	7.4	19.7
Wild buckwheat	26	2.9	11.2	0.2	0.6	0.2	1.6	11.9
Wild mustard	19	1.8	9.2	0.1	0.6	0.4	1.0	8.5
Russian thistle	6	1.0	15.0	0.1	1.2	0.6	1.8	3.3
Common lambsquarters	6	0.6	10.0	<0.1	0.5	0.4	0.6	2.9
Wild rose	3	0.3	10.0	<0.1	0.6	0.6	0.6	1.4
Volunteer sunflower	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.4
Common purslane	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3
Perennial sowthistle	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3
Prickly lettuce	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3
Weed free	26	5.2	20.0	—	—	—	—	—

Table 47. Oliver County weed infestations based on 8 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.6	95.6	44.3	44.3	7.0	136.8	232.4
Yellow foxtail	63	46.2	74.0	21.9	35.0	5.6	78.0	118.1
Wild buckwheat	88	33.1	37.9	3.0	3.4	0.2	9.8	69.3
Wild oats	63	23.1	37.0	5.2	8.3	0.8	34.2	56.1
Russian thistle	63	23.1	37.0	1.8	3.0	1.0	4.8	48.3
Field bindweed	50	7.5	15.0	1.5	3.1	1.4	4.0	27.8
Common lambsquarters	50	5.6	11.2	0.4	0.9	0.4	1.6	23.3
Redroot pigweed	50	5.0	10.0	0.2	0.4	0.2	0.8	22.2
Bromegrass	13	7.5	60.0	1.4	11.0	11.0	11.0	14.9
Kochia	38	1.9	5.0	0.1	0.2	0.2	0.2	14.5
Wild rose	25	3.1	12.5	0.2	0.8	0.8	0.8	11.9
Prostrate pigweed	25	2.5	10.0	0.1	0.4	0.2	0.6	11.1
Wild mustard	25	1.9	7.5	0.1	0.6	0.2	1.0	10.6
Common cocklebur	25	1.2	5.0	<0.1	0.2	0.2	0.2	9.7
Volunteer sunflower	13	1.9	15.0	0.1	0.6	0.6	0.6	6.2
Quackgrass	13	1.2	10.0	0.3	2.2	2.2	2.2	6.1
Ragweed	13	0.6	5.0	<0.1	0.2	0.2	0.2	4.9
Weed free	13	1.2	10.0	—	—	—	—	—

Table 48. Pembina County weed infestations based on 38 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	89	72.0	80.4	12.9	14.5	3.2	35.0	132.0
Wild oats	84	50.3	59.7	4.4	5.3	0.4	17.6	88.7
Wild buckwheat	50	13.9	27.9	1.0	1.9	0.2	9.0	32.8
Kochia	50	10.1	20.3	0.7	1.4	0.2	9.0	28.5
Redroot pigweed	39	12.8	32.3	1.0	2.5	0.2	10.0	28.2
Smartweed	5	1.6	30.0	0.1	1.8	0.8	2.8	3.6
Barnyardgrass	8	0.5	6.7	<0.1	0.5	0.2	0.8	3.2
Common lambsquarters	5	0.9	17.5	0.1	1.2	0.2	2.2	2.8
Canada thistle	5	0.9	17.5	<0.1	0.9	0.2	1.6	2.8
Flixweed	3	1.3	50.0	0.1	4.2	4.2	4.2	2.5
Russian thistle	5	0.5	10.0	<0.1	0.5	0.2	0.8	2.3
Volunteer sunflower	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Wild mustard	3	0.7	25.0	<0.1	1.2	1.2	1.2	1.6

Table 48 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Prostrate pigweed	3	0.3	10.0	<0.1	0.6	0.6	0.6	1.2
False chamomile	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Weed free	29	6.4	22.3	—	—	—	—	—

Table 49. Pierce County weed infestations based on 26 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	99.0	99.0	66.5	66.5	10.4	396.0	287.6
Russian thistle	69	39.4	56.9	5.5	7.9	0.2	22.0	75.3
Wild buckwheat	85	36.5	43.2	3.1	3.6	0.4	13.2	71.9
Wild oats	69	35.8	51.7	4.3	6.2	0.2	19.6	68.8
Redroot pigweed	42	17.5	41.4	1.7	4.1	0.6	17.2	35.6
Common lambsquarters	31	11.2	36.2	1.4	4.5	0.2	13.8	24.7
Field bindweed	23	10.8	46.7	1.3	5.6	3.0	9.0	21.5
Kochia	23	4.6	20.0	0.3	1.4	0.4	3.0	13.1
Yellow foxtail	8	6.0	77.5	1.3	16.6	6.8	26.4	11.5
Volunteer sunflower	12	6.2	53.3	0.5	4.0	2.4	6.2	11.1
Wild mustard	15	4.6	30.0	0.4	2.3	1.2	4.0	10.6
Canada thistle	12	5.0	43.3	0.7	5.8	0.6	15.0	10.4
Wild rose	8	6.0	77.5	0.5	6.5	6.2	6.8	9.7
Nightflowering catchfly	8	4.8	62.5	0.6	7.2	6.4	8.0	8.7
Quackgrass	4	1.9	50.0	0.2	5.0	5.0	5.0	3.7
Smartweed	4	1.5	40.0	0.1	2.6	2.6	2.6	3.1
Perennial sowthistle	4	1.0	25.0	0.2	5.0	5.0	5.0	2.7
Clover	4	1.2	30.0	0.1	2.2	2.2	2.2	2.6
Common cocklebur	4	0.8	20.0	0.2	4.0	4.0	4.0	2.4
Skeleton weed	4	0.2	5.0	<0.1	0.2	0.2	0.2	1.5
Common milkweed	4	0.2	5.0	<0.1	0.4	0.4	0.4	1.5
Weed free	4	0.8	20.0	—	—	—	—	—

Table 50. Ramsey County weed infestations based on 39 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	81.4	81.4	22.5	22.5	0.2	61.0	167.2
Wild oats	69	27.2	39.3	2.7	3.9	0.6	25.2	56.6
Redroot pigweed	51	10.5	20.5	0.8	1.5	0.4	4.6	29.4
Wild buckwheat	38	6.5	17.0	0.4	1.1	0.2	2.6	20.3
Kochia	31	2.7	8.7	0.2	0.8	0.2	2.4	13.5
Wild mustard	23	3.5	15.0	0.3	1.1	0.4	2.2	11.8
Roundleaf mallow	5	0.5	10.0	<0.1	0.6	0.2	1.0	2.3
Russian thistle	5	0.4	7.5	<0.1	0.5	0.4	0.6	2.2
Prostrate pigweed	5	0.3	5.0	<0.1	0.4	0.4	0.4	2.0
Common purslane	3	0.8	30.0	0.1	2.6	2.6	2.6	1.8
Common lambsquarters	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Perennial sowthistle	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Prickly lettuce	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Wild barley	3	0.1	5.0	<0.1	0.4	0.4	0.4	1.0
Weed free	26	5.0	19.5	—	—	—	—	—

Table 51. Ransom County weed infestations based on 19 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	89	83.2	92.9	37.0	41.4	2.8	93.4	199.4
Yellow foxtail	47	28.4	60.0	4.4	9.3	0.8	38.6	54.5
Wild oats	58	21.8	37.7	3.4	5.8	1.4	15.0	49.0
Redroot pigweed	26	20.3	77.0	3.0	11.5	3.6	19.8	36.1
Wild buckwheat	32	12.6	40.0	1.1	3.3	1.0	6.4	25.6
Common lambsquarters	26	7.9	30.0	0.6	2.3	1.2	3.0	18.1
Common milkweed	21	1.8	8.7	0.1	0.6	0.2	1.6	9.2
Clover	11	3.7	35.0	0.3	2.9	2.2	3.6	7.9
Volunteer millet	5	3.2	60.0	0.2	3.8	3.8	3.8	5.4
Volunteer sunflower	11	1.3	12.5	0.1	0.6	0.4	0.8	5.0
Nightflowering catchfly	5	0.8	15.0	0.1	1.0	1.0	1.0	2.7
Wild rose	5	0.3	5.0	<0.1	0.4	0.4	0.4	2.1
Wild mustard	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0

Table 52. Renville County weed infestations based on 25 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	99.0	99.0	34.2	34.2	14.6	72.0	212.1
Wild oats	100	89.4	89.4	24.5	24.5	3.8	88.6	179.9
Kochia	68	47.6	70.0	4.7	7.0	2.0	17.0	81.3
Common lambsquarters	68	39.8	58.5	2.9	4.2	1.2	7.8	69.2
Perennial sowthistle	60	36.0	60.0	2.8	4.6	0.8	10.8	62.5
Volunteer sunflower	60	31.6	52.7	2.2	3.7	1.8	5.4	56.7
Redroot pigweed	28	17.8	63.6	1.9	6.7	1.6	18.6	31.5
Wild mustard	16	10.2	63.7	0.9	5.8	2.0	10.0	17.7
Common purslane	16	6.8	42.5	0.4	2.8	1.4	5.4	13.2
Quackgrass	12	7.4	61.7	0.7	5.5	2.6	8.0	12.9
Canada thistle	12	6.2	51.7	0.4	3.5	0.8	6.6	11.2
Field pennycress	8	3.4	42.5	0.2	2.7	1.8	3.6	6.6
Field bindweed	4	2.8	70.0	0.3	7.0	7.0	7.0	4.8
Smartweed	4	2.8	70.0	0.3	6.4	6.4	6.4	4.7
Prostrate pigweed	4	2.0	50.0	0.1	2.2	2.2	2.2	3.5
False chamomile	4	0.8	20.0	<0.1	0.8	0.8	0.8	2.2

Table 53. Richland County weed infestations based on 37 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	92	53.6	58.4	21.0	22.9	0.6	396.0	133.4
Yellow foxtail	78	33.6	42.9	8.9	11.4	1.0	96.2	80.6
Wild oats	32	12.3	37.9	6.4	19.8	0.2	131.4	38.1
Yellow woodsorrel	19	5.3	27.9	0.7	3.5	0.8	9.4	13.1
Volunteer sunflower	19	4.5	23.6	0.9	4.6	0.2	27.2	12.8
Canada thistle	22	3.4	15.6	0.4	1.9	0.4	5.8	11.6
Wild buckwheat	16	3.9	24.2	0.9	5.7	0.2	28.0	11.5
Field bindweed	8	5.4	66.7	1.4	16.7	12.4	18.8	11.3
Common milkweed	24	1.9	7.8	0.1	0.5	0.2	1.2	10.3
Redroot pigweed	5	2.6	47.5	1.0	18.0	1.6	34.4	6.6
Barnyardgrass	14	1.4	10.0	0.2	1.4	0.2	3.6	6.3
Wild mint	5	3.1	57.5	0.3	6.4	4.0	8.8	5.7
Clover	8	0.7	8.3	0.1	1.1	0.2	1.6	3.6
Kochia	8	0.7	8.3	0.1	0.7	0.6	0.8	3.5
Prickly lettuce	5	1.1	20.0	0.1	2.6	2.6	2.6	3.2

Table 53 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Roundleaf mallow	3	1.2	45.0	0.4	14.2	14.2	14.2	3.0
Wild mustard	3	1.1	40.0	0.4	15.8	15.8	15.8	3.0
Dock	5	0.8	15.0	0.1	1.6	1.6	1.6	2.8
Wild four-o'clock	3	0.8	30.0	0.4	15.0	15.0	15.0	2.7
Common dandelion	5	0.5	10.0	0.1	1.0	1.0	1.0	2.5
Prostrate pigweed	3	1.2	45.0	0.1	4.0	4.0	4.0	2.4
Quackgrass	3	0.8	30.0	0.2	6.4	6.4	6.4	2.1
Marshelder	3	0.3	10.0	0.3	10.0	10.0	10.0	1.8
Ragweed	3	0.5	20.0	0.1	2.0	2.0	2.0	1.6
Perennial sowthistle	3	0.4	15.0	0.1	4.0	4.0	4.0	1.6
Smartweed	3	0.3	10.0	<0.1	0.6	0.6	0.6	1.2
Wild barley	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Wild rose	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Russian thistle	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0

Table 54. Rolette County weed infestations based on 22 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	97.7	97.7	72.1	72.1	14.8	171.8	299.4
Wild buckwheat	86	56.8	65.8	6.1	7.0	0.2	18.8	99.8
Wild oats	86	45.9	53.2	5.8	6.7	0.4	25.2	88.2
Redroot pigweed	50	23.6	47.3	5.3	10.7	0.6	43.0	52.8
Common lambsquarters	41	15.9	38.9	1.7	4.0	1.0	10.8	33.4
Nightflowering catchfly	36	15.5	42.5	1.3	3.5	0.8	7.4	30.5
Canada thistle	32	12.3	38.6	2.6	8.3	0.6	30.0	29.0
Russian thistle	23	12.7	56.0	3.7	16.4	1.2	38.2	29.0
Wild mustard	23	10.0	44.0	1.8	7.9	0.4	30.0	21.8
Kochia	27	8.2	30.0	0.6	2.1	0.2	6.0	18.6
Quackgrass	18	7.3	40.0	1.0	5.3	0.8	8.4	15.6
Perennial sowthistle	23	5.5	24.0	0.5	2.3	0.8	6.2	14.3
Wild rose	14	5.9	43.3	0.5	3.7	1.8	6.4	11.6
Yellow foxtail	14	5.5	40.0	0.6	4.6	1.4	10.4	11.5
Common chickweed	5	4.5	100.0	1.9	42.0	42.0	42.0	10.5
Volunteer sunflower	14	4.3	31.7	0.3	1.9	0.4	3.4	9.5
Smartweed	9	4.5	50.0	0.4	4.1	0.6	7.6	8.4
Barnyardgrass	5	1.6	35.0	0.3	5.8	5.8	5.8	3.7
Skeleton weed	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.5
Prostrate pigweed	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.0
Prickly lettuce	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	5	0.2	5.0	—	—	—	—	—

Table 55. Sargent County weed infestations based on 20 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	90	81.5	90.6	24.3	27.0	6.6	53.0	168.1
Yellow foxtail	60	41.7	69.6	10.5	17.5	2.8	53.8	86.3
Wild oats	50	25.5	51.0	6.2	12.4	0.8	47.2	56.6
Wild buckwheat	30	16.2	54.2	1.5	5.0	0.4	11.0	29.8
Wild mustard	30	15.0	50.0	1.5	5.0	0.6	10.8	28.5
Redroot pigweed	20	13.0	65.0	1.3	6.8	3.2	13.0	22.8
Roundleaf mallow	20	9.2	46.2	2.3	11.8	1.4	38.0	21.4
Clover	15	8.0	53.3	0.8	5.5	3.8	9.0	14.9

Table 55 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Ragweed	15	5.7	38.3	0.5	3.5	0.6	7.8	12.0
Quackgrass	5	5.0	100.0	1.0	20.6	20.6	20.6	9.1
Canada thistle	15	2.5	16.7	0.2	1.5	0.8	3.0	8.0
Volunteer millet	5	5.0	100.0	0.5	10.8	10.8	10.8	7.9
Yellow woodsorrel	10	3.2	32.5	0.2	2.4	0.8	4.0	7.1
Kochia	10	2.5	25.0	0.3	2.7	1.4	4.0	6.5
Wild rose	10	2.0	20.0	0.1	1.3	1.2	1.4	5.6
Volunteer sunflower	5	1.5	30.0	0.1	2.6	2.6	2.6	3.5
Prickly lettuce	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.2
Common milkweed	5	0.2	5.0	<0.1	0.6	0.6	0.6	2.0
Barnyardgrass	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Volunteer corn	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Dock	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9

Table 56. Sheridan County weed infestations based on 21 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	94.8	98.4	45.2	55.1	1.6	59.8	232.4
Wild buckwheat	100	88.1	88.1	18.8	18.8	9.6	29.0	165.3
Wild oats	57	21.7	37.9	2.3	4.0	0.8	6.2	46.0
Common lambsquarters	29	11.7	40.8	1.0	3.5	2.0	5.2	23.5
Perennial sowthistle	24	10.5	44.0	1.4	5.9	1.4	18.2	21.7
Canada thistle	19	7.6	40.0	0.9	4.5	2.2	6.2	16.0
Kochia	14	4.3	30.0	0.3	2.3	1.4	3.0	9.8
Redroot pigweed	5	1.7	35.0	0.1	2.8	2.8	2.8	3.6
Muskthistle	5	1.0	20.0	<0.1	1.0	1.0	1.0	2.7
Prostrate pigweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Russian thistle	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8

Table 57. Sioux County weed infestations based on 6 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	93.3	93.3	57.8	57.8	7.6	113.0	261.5
Wild buckwheat	83	41.7	50.0	4.3	5.2	1.0	10.2	79.6
Field bindweed	67	27.5	41.2	9.4	14.1	1.2	26.0	71.7
Redroot pigweed	67	17.5	26.2	1.2	1.8	0.2	5.0	42.6
Russian thistle	50	15.8	31.7	3.5	7.1	0.2	20.8	40.7
Wild oats	50	15.0	30.0	1.2	2.5	0.4	5.0	34.5
Common lambsquarters	17	8.3	50.0	0.5	3.0	3.0	3.0	15.1
Common cocklebur	17	5.0	30.0	0.5	2.8	2.8	2.8	11.6
Barnyardgrass	17	0.8	5.0	<0.1	0.2	0.2	0.2	6.5
Ragweed	17	0.8	5.0	<0.1	0.2	0.2	0.2	6.5
Volunteer sunflower	17	0.8	5.0	0.1	0.4	0.4	0.4	6.5
Kochia	17	0.8	5.0	<0.1	0.2	0.2	0.2	6.5

Table 58. Slope County weed infestations based on 12 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	83	57.1	68.5	26.0	31.2	1.2	72.8	145.5
Wild oats	75	44.2	58.9	13.7	18.2	0.6	60.6	101.1
Redroot pigweed	83	25.8	31.0	6.1	7.3	0.2	45.0	67.9
Wild buckwheat	67	26.2	39.4	3.1	4.7	0.4	12.6	55.8
Russian thistle	42	15.8	38.0	2.5	6.0	0.2	16.4	35.5
Volunteer sunflower	42	11.2	27.0	0.7	1.8	0.4	3.0	26.8
Prickly lettuce	25	2.1	8.3	0.2	0.9	0.2	2.0	10.9
Wild rose	25	1.7	6.7	0.3	1.4	0.6	2.8	10.8
Kochia	25	1.2	5.0	0.2	0.7	0.4	1.2	10.0
Common chickweed	17	1.2	7.5	0.1	0.8	0.8	0.8	7.1
Common dandelion	8	1.2	15.0	0.1	1.2	1.2	1.2	4.3
Muskthistle	8	0.8	10.0	0.1	1.4	1.4	1.4	3.9
Common lambsquarters	8	0.8	10.0	0.1	1.2	1.2	1.2	3.8
Perennial sowthistle	8	0.4	5.0	<0.1	0.6	0.6	0.6	3.3
Weed free	25	8.7	35.0	—	—	—	—	—

Table 59. Stark County weed infestations based on 22 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild oats	95	51.1	53.6	10.4	10.9	0.2	43.0	107.2
Green foxtail	59	33.9	57.3	19.0	32.2	0.2	122.0	98.0
Yellow foxtail	41	16.1	39.4	6.7	16.3	0.4	87.0	45.3
Redroot pigweed	64	13.9	21.8	1.9	3.1	0.2	16.0	39.6
Wild buckwheat	50	15.7	31.4	2.3	4.7	0.2	17.4	37.8
Russian thistle	27	5.2	19.2	1.5	5.7	0.2	24.8	17.9
Kochia	27	6.4	23.3	0.5	1.8	0.4	4.2	16.6
Common lambsquarters	18	4.3	23.7	0.8	4.1	0.2	14.8	12.1
Prickly lettuce	14	1.8	13.3	0.1	0.5	0.2	1.2	6.5
Field bindweed	9	1.1	12.5	0.3	3.5	0.2	6.8	4.9
Wild mustard	9	1.4	15.0	0.1	1.1	0.6	1.6	4.6
Volunteer sunflower	9	0.9	10.0	<0.1	0.4	0.4	0.4	4.0
Green sage	9	0.7	7.5	<0.1	0.3	0.2	0.4	3.8
Wild rose	5	1.4	30.0	0.4	7.8	7.8	7.8	3.7
Common cocklebur	9	0.5	5.0	<0.1	0.5	0.4	0.6	3.6
Common dandelion	5	0.9	20.0	0.1	1.4	1.4	1.4	2.6
Volunteer soybean	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.0
Common chickweed	5	0.2	5.0	0.1	1.4	1.4	1.4	1.9
Skeleton weed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Quackgrass	5	0.2	5.0	<0.1	0.4	0.4	0.4	1.8
Perennial sowthistle	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Timothy	5	0.2	5.0	<0.1	0.4	0.4	0.4	1.8
Weed free	59	17.3	29.2	—	—	—	—	—

Table 60. Steele County weed infestations based on 29 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	93.3	96.6	117.4	121.6	10.2	262.8	399.3
Wild oats	72	29.0	40.0	6.3	8.7	0.4	81.8	67.9
Wild buckwheat	66	21.2	32.4	2.1	3.2	0.2	27.6	47.9
Redroot pigweed	38	12.2	32.3	1.8	4.6	0.2	19.8	29.0
Nightflowering catchfly	21	4.3	20.8	0.3	1.3	0.2	3.2	11.9
Russian thistle	21	1.0	5.0	<0.1	0.2	0.2	0.2	8.0
Kochia	14	2.2	16.2	0.2	1.7	0.2	5.6	7.4

Table 60 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Perennial sowthistle	17	1.2	7.0	0.1	0.4	0.2	1.0	7.1
Volunteer sunflower	10	2.2	21.7	0.6	5.3	0.4	11.8	7.0
Canada thistle	10	1.6	15.0	0.3	2.5	0.2	7.0	5.6
Barnyardgrass	3	2.6	75.0	0.4	11.6	11.6	11.6	4.7
Common milkweed	10	1.0	10.0	0.1	1.1	0.8	1.4	4.7
Prostrate pigweed	7	1.6	22.5	0.1	2.0	0.2	3.8	4.2
Wild mustard	7	1.2	17.5	0.1	1.2	0.2	2.2	3.7
Common purslane	3	1.7	50.0	0.2	6.0	6.0	6.0	3.4
Yellow foxtail	3	1.4	40.0	0.3	8.6	8.6	8.6	3.2
Volunteer soybean	3	0.5	15.0	<0.1	0.6	0.6	0.6	1.7
Clover	3	0.5	15.0	<0.1	0.8	0.8	0.8	1.7
Volunteer tame oats	3	0.2	5.0	<0.1	0.4	0.4	0.4	1.4
Prickly lettuce	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3
Wild rose	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3

Table 61. Stutsman County weed infestations based on 11 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	93.2	93.2	30.2	30.2	2.4	102.2	263.7
Wild buckwheat	100	98.2	98.2	17.8	17.8	8.2	27.2	173.0
Wild oats	45	15.9	35.0	1.2	2.6	1.0	5.0	33.8
Perennial sowthistle	36	16.4	45.0	1.3	3.4	2.0	4.6	31.4
Common lambsquarters	36	15.0	41.2	1.1	3.0	1.0	4.4	29.7
Canada thistle	18	6.8	37.5	0.4	2.0	1.4	2.6	13.7
Kochia	9	1.4	15.0	0.1	0.8	0.8	0.8	4.6

Table 62. Towner County weed infestations based on 32 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	92.8	95.8	89.5	92.4	5.4	325.0	334.0
Wild oats	81	51.9	63.8	23.8	29.3	0.4	197.4	134.6
Wild buckwheat	91	51.4	56.7	6.3	7.0	0.6	27.8	96.3
Redroot pigweed	84	35.9	42.6	5.3	6.3	0.4	36.2	76.4
Nightflowering catchfly	59	26.1	43.9	3.9	6.5	0.2	20.4	54.9
Wild mustard	31	7.0	22.5	1.3	4.3	0.2	31.8	20.6
Canada thistle	28	5.3	18.9	0.9	3.2	0.2	6.6	16.8
Perennial sowthistle	22	5.9	27.1	1.1	5.2	0.4	27.2	15.9
Russian thistle	9	6.1	65.0	1.7	18.4	10.2	27.0	13.2
Kochia	22	4.2	19.3	0.3	1.5	0.2	5.2	12.3
Common lambsquarters	22	4.1	18.6	0.3	1.5	0.2	4.6	12.1
Barnyardgrass	3	3.1	100.0	0.9	29.2	29.2	29.2	6.3
Common purslane	6	2.3	37.5	0.2	3.3	2.6	4.0	4.9
Greenflower pepperweed	3	1.2	40.0	0.6	17.8	17.8	17.8	3.6
Field bindweed	6	0.5	7.5	0.1	1.2	0.4	2.0	2.7
Roundleaf mallow	6	0.5	7.5	<0.1	0.6	0.4	0.8	2.6
Horsetail	3	0.8	25.0	0.2	7.4	7.4	7.4	2.4
False chamomile	3	0.6	20.0	<0.1	0.8	0.8	0.8	1.7
Prostrate pigweed	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Weed free	3	1.1	35.0	—	—	—	—	—

Table 63. Traill County weed infestations based on 31 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	90.8	90.8	95.6	95.6	2.4	387.0	347.3
Wild oats	68	27.6	40.7	4.4	6.5	0.2	35.2	60.4
Wild buckwheat	42	12.3	29.2	1.0	2.5	0.2	13.8	28.6
Redroot pigweed	35	11.3	31.8	1.1	3.0	0.2	10.0	25.6
Prostrate pigweed	29	6.5	22.2	0.6	2.2	0.4	10.4	17.6
Kochia	23	3.4	15.0	0.2	0.7	0.2	1.0	11.3
Common lambsquarters	16	3.5	22.0	0.4	2.3	0.4	9.2	9.8
Barnyardgrass	10	4.8	50.0	0.6	6.7	0.2	14.2	9.6
Canada thistle	13	2.3	17.5	0.3	2.1	0.8	3.8	7.2
Wild mustard	3	3.2	100.0	0.3	8.0	8.0	8.0	4.9
Yellow foxtail	3	2.1	65.0	0.5	16.6	16.6	16.6	4.4
Quackgrass	10	0.6	6.7	0.2	1.7	0.4	3.2	4.3
Russian thistle	10	1.0	10.0	0.1	0.6	0.2	1.4	4.3
Nightflowering catchfly	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.5
Smartweed	3	0.3	10.0	0.1	3.0	3.0	3.0	1.6
Wild rose	3	0.5	15.0	<0.1	0.8	0.8	0.8	1.6
Volunteer barley	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.4
Roundleaf mallow	3	0.2	5.0	<0.1	0.4	0.4	0.4	1.3
Perennial sowthistle	3	0.2	5.0	<0.1	0.8	0.8	0.8	1.3
Common milkweed	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.3

Table 64. Walsh County weed infestations based on 44 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	83.5	83.5	26.4	26.4	3.4	104.0	178.4
Wild oats	84	43.2	51.4	5.2	6.2	0.2	33.4	83.3
Redroot pigweed	50	13.1	26.1	1.5	2.9	0.4	22.2	33.1
Kochia	39	6.0	15.6	0.5	1.3	0.2	6.0	20.1
Wild buckwheat	32	6.1	19.3	0.5	1.6	0.2	12.0	18.0
Wild mustard	11	1.2	11.0	0.1	0.6	0.2	1.0	5.2
Canada thistle	11	1.0	9.0	0.1	0.7	0.2	1.4	5.0
Volunteer sunflower	9	1.0	11.2	0.1	0.6	0.2	1.4	4.2
Nightflowering catchfly	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Yellow foxtail	5	0.2	5.0	<0.1	0.4	0.4	0.4	1.8
Prostrate pigweed	5	0.2	5.0	<0.1	0.3	0.2	0.4	1.8
False chamomile	2	0.5	20.0	<0.1	0.8	0.8	0.8	1.3
Common lambsquarters	2	0.2	10.0	<0.1	1.4	1.4	1.4	1.1
Barnyardgrass	2	0.2	10.0	<0.1	0.8	0.8	0.8	1.0
Hedge bindweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Common purslane	2	0.1	5.0	<0.1	0.4	0.4	0.4	0.9
Perennial sowthistle	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Weed free	43	9.1	21.1	—	—	—	—	—

Table 65. Ward County weed infestations based on 51 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	97.4	97.4	23.4	23.4	2.8	36.2	185.3
Wild oats	86	57.4	66.5	7.4	8.6	0.2	38.8	103.4
Common lambsquarters	65	46.4	71.7	5.5	8.5	2.2	46.4	80.7
Field bindweed	63	44.0	70.2	4.7	7.4	1.2	17.4	75.8
Redroot pigweed	55	27.4	49.8	2.1	3.8	0.8	7.4	50.6

Table 65 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Volunteer sunflower	47	18.3	39.0	1.3	2.8	0.4	8.8	37.1
Perennial sowthistle	37	16.3	43.7	1.2	3.2	0.4	9.2	31.5
Wild mustard	29	11.1	37.7	1.0	3.5	0.4	13.2	23.3
Canada thistle	25	11.0	43.1	0.7	2.9	0.4	6.0	21.2
Kochia	24	9.8	41.7	0.8	3.5	0.4	10.4	19.6
Wild buckwheat	12	7.8	66.7	0.7	6.2	1.6	12.6	13.5
Russian thistle	12	5.4	45.8	0.6	5.2	0.4	19.2	10.8
Quackgrass	16	3.9	25.0	0.2	1.5	0.2	4.8	9.7
Common purslane	10	4.3	44.0	0.4	4.3	0.8	13.2	8.6
Field pennycress	10	3.9	40.0	0.3	2.8	0.6	6.2	7.8
Ragweed	10	3.4	35.0	0.3	2.6	1.0	3.6	7.3
Prostrate pigweed	6	3.9	66.7	0.4	6.4	2.8	11.2	6.8
Barnyardgrass	4	3.4	87.5	0.3	7.6	5.0	10.2	5.4
Volunteer barley	4	1.3	32.5	0.2	4.9	4.8	5.0	3.0
Downy brome	4	1.2	30.0	0.2	5.1	1.2	9.0	3.0
Greenflower pepperweed	2	0.8	40.0	<0.1	2.2	2.2	2.2	1.5
Nightflowering catchfly	2	0.5	25.0	<0.1	1.0	1.0	1.0	1.2
Leafy spurge	2	0.4	20.0	<0.1	1.0	1.0	1.0	1.1

Table 66. Williams County weed infestations based on 33 surveyed fields, 1978.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	66.2	68.3	9.7	10.0	0.2	26.0	121.2
Redroot pigweed	61	12.1	20.0	0.8	1.3	0.2	7.4	34.2
Wild buckwheat	30	8.8	29.0	0.6	2.0	0.2	8.4	20.3
Wild oats	18	7.3	40.0	1.1	6.1	0.4	20.6	15.9
Field bindweed	12	1.2	10.0	0.1	0.6	0.2	1.6	5.4
Yellow foxtail	9	0.6	6.7	<0.1	0.5	0.2	1.0	3.7
Kochia	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.5
Prostrate pigweed	6	0.5	7.5	<0.1	0.8	0.2	1.4	2.6
Weed free	70	20.3	29.1	—	—	—	—	—

Table 67. Adams County weed infestations based on 15 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	73	39.3	53.6	9.4	12.9	2.8	37.0	85.8
Wild oats	60	37.7	62.8	9.7	16.1	7.8	35.0	80.3
Redroot pigweed	73	29.0	39.5	6.5	8.8	0.4	24.2	68.5
Field bindweed	60	29.7	49.4	6.4	10.7	4.0	25.8	64.7
Wild buckwheat	53	16.3	30.6	2.2	4.1	0.2	12.4	39.3
Volunteer sunflower	47	17.7	37.9	1.8	3.9	0.2	13.4	37.5
Kochia	27	10.3	38.7	1.7	6.3	1.8	15.2	23.2
Yellow foxtail	20	8.3	41.7	3.2	16.0	3.4	37.0	22.5
Russian thistle	27	6.0	22.5	0.5	1.8	0.4	4.4	16.0
Common lambsquarters	13	5.7	42.5	0.5	3.7	2.4	5.0	11.3
Wild rose	7	5.3	80.0	0.9	13.0	13.0	13.0	9.6
Wild barley	7	2.7	40.0	1.7	24.8	24.8	24.8	8.7
Common cocklebur	7	3.3	50.0	1.2	18.0	18.0	18.0	8.4
Wild mustard	7	1.7	25.0	0.3	4.8	4.8	4.8	4.6

Table 67 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Dwarf mallow	7	2.0	30.0	0.1	2.2	2.2	2.2	4.6
Prickly lettuce	7	1.3	20.0	0.3	4.0	4.0	4.0	4.2
Prostrate pigweed	7	0.7	10.0	<0.1	0.4	0.4	0.4	3.0
Field pennycress	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Weed free	13	2.7	20.0	—	—	—	—	—

Table 68. Barnes County weed infestations based on 48 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	77.4	79.0	32.5	33.2	0.4	199.0	185.8
Wild mustard	79	25.6	32.4	2.6	3.2	0.2	52.6	58.0
Yellow foxtail	44	19.0	43.3	4.5	10.2	0.2	57.6	44.0
Wild buckwheat	71	15.7	22.2	1.2	1.7	0.2	13.6	42.1
Redroot pigweed	73	13.0	17.9	0.9	1.3	0.2	7.8	39.5
Canada thistle	65	12.2	18.9	1.4	2.2	0.2	10.4	37.0
Wild oats	48	12.2	25.4	1.2	2.6	0.4	8.4	31.0
Common lambsquarters	58	9.7	16.6	0.6	1.1	0.2	9.2	30.6
Kochia	44	7.0	16.0	0.5	1.2	0.2	4.4	22.8
Prostrate pigweed	35	6.0	17.1	0.5	1.5	0.2	12.2	19.1
Russian thistle	33	4.9	14.7	0.4	1.1	0.2	5.6	16.9
Quackgrass	21	5.8	28.0	0.9	4.4	0.4	16.4	14.9
Shepherdspurse	25	5.3	21.2	0.3	1.2	0.2	2.8	14.4
Ragweed	29	3.9	13.2	0.3	0.9	0.2	4.4	14.2
Volunteer sunflower	15	6.9	47.1	0.8	5.7	1.2	18.2	13.7
Perennial sowthistle	25	3.4	13.7	0.3	1.2	0.2	7.0	12.5
Wild rose	27	2.9	10.8	0.2	0.7	0.2	2.2	12.4
Prostrate spurge	23	3.3	14.5	0.2	0.7	0.2	2.6	11.3
Fumitory	17	4.2	25.0	0.3	1.9	0.2	9.6	10.5
Field bindweed	21	2.9	14.0	0.2	1.0	0.2	3.8	10.4
Common purslane	13	2.0	15.8	0.2	1.4	0.2	4.2	6.6
Common milkweed	15	1.5	10.0	0.1	0.9	0.2	1.6	6.6
Dwarf mallow	6	0.9	15.0	<0.1	0.8	0.4	1.0	3.1
Greenflower pepperweed	4	1.5	35.0	0.1	1.8	1.4	2.2	3.0
Nightflowering catchfly	4	0.5	12.5	<0.1	0.5	0.2	0.8	2.0
Volunteer millet	2	0.5	25.0	<0.1	1.2	1.2	1.2	1.3
Smartweed	2	0.4	20.0	<0.1	1.6	1.6	1.6	1.2
Dock	2	0.3	15.0	<0.1	1.0	1.0	1.0	1.1
Wild barley	2	0.1	5.0	<0.1	1.6	1.6	1.6	0.9
Volunteer flax	2	0.2	10.0	<0.1	0.8	0.8	0.8	0.9
Common dandelion	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Flixweed	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Weed free	31	4.3	13.7	—	—	—	—	—

Table 69. Benson County weed infestations based on 37 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	86.2	88.6	71.4	73.4	1.0	309.0	285.3
Redroot pigweed	86	28.5	33.0	2.6	3.0	0.2	12.4	63.4
Wild mustard	78	27.4	35.0	3.3	4.2	0.2	47.0	61.3
Wild buckwheat	73	22.0	30.2	1.7	2.4	0.2	10.4	50.4
Russian thistle	54	11.1	20.5	1.3	2.3	0.2	19.6	32.0
Common lambsquarters	54	9.6	17.7	0.6	1.2	0.2	4.6	29.1
Prostrate pigweed	35	12.7	36.2	1.3	3.7	0.2	9.8	27.5
Kochia	35	8.5	24.2	2.2	6.3	0.2	62.0	25.4
Wild oats	35	8.6	24.6	0.9	2.5	0.2	9.4	22.4
Canada thistle	24	5.0	20.6	0.4	1.8	0.6	4.2	14.2
Common cocklebur	16	2.8	17.5	0.2	1.5	0.2	5.6	8.8
Wild rose	19	2.2	11.4	0.1	0.7	0.2	2.0	8.8
Prostrate spurge	14	3.4	25.0	0.2	1.7	0.4	5.2	8.4
Field bindweed	14	3.0	22.0	0.2	1.2	0.4	2.2	7.9
Perennial sowthistle	14	2.3	17.0	0.3	2.2	0.4	5.2	7.5
Field pennycress	14	2.2	16.0	0.1	0.8	0.4	1.6	6.9
Dwarf mallow	14	1.6	12.0	0.1	0.9	0.2	2.6	6.4
Common purslane	11	1.4	12.5	0.3	2.7	0.4	8.4	5.6
Ragweed	11	1.8	16.2	0.1	0.7	0.2	1.2	5.5
Quackgrass	5	0.7	12.5	<0.1	0.5	0.4	0.6	2.5
Flixweed	3	1.2	45.0	0.1	3.4	3.4	3.4	2.3
Volunteer sunflower	3	0.5	20.0	<0.1	1.6	1.6	1.6	1.5
Greenflower pepperweed	3	0.5	20.0	<0.1	0.8	0.8	0.8	1.5
Common milkweed	3	0.4	15.0	<0.1	0.8	0.8	0.8	1.4
Skeleton weed	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Marshelder	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Weed free	24	3.2	13.3	—	—	—	—	—

Table 70. Billings County weed infestations based on 10 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	80	37.0	46.2	15.2	19.0	0.2	72.0	99.2
Wild oats	50	32.0	64.0	8.1	16.2	0.8	26.4	67.6
Russian thistle	80	28.0	35.0	3.8	4.8	0.2	15.8	63.6
Wild buckwheat	70	19.0	27.1	2.3	3.2	0.2	16.0	47.6
Redroot pigweed	70	18.0	25.7	2.4	3.4	0.2	11.6	46.9
Common lambsquarters	70	17.5	25.0	2.1	2.9	0.2	15.6	45.6
Field pennycress	50	13.5	27.0	2.1	4.2	0.4	9.8	35.1
Wild mustard	50	13.0	26.0	0.8	1.5	0.6	2.8	31.4
Volunteer sunflower	40	4.5	11.2	0.2	0.5	0.2	1.0	18.3
Large crabgrass	20	7.0	35.0	1.5	7.6	1.2	14.0	17.2
Kochia	30	4.5	15.0	0.3	0.9	0.4	1.8	15.2
Common purslane	10	7.0	70.0	2.0	19.8	19.8	19.8	15.0
Prostrate spurge	30	2.0	6.7	0.1	0.3	0.2	0.4	12.2
Prostrate pigweed	20	1.5	7.5	0.1	0.4	0.2	0.6	8.4
Common dandelion	10	4.0	40.0	0.3	3.2	3.2	3.2	8.1
Downy brome	10	2.0	20.0	0.5	5.2	5.2	5.2	6.5
Gumweed	10	1.5	15.0	0.2	1.6	1.6	1.6	5.2
Leafy spurge	10	1.5	15.0	0.2	1.6	1.6	1.6	5.2
Flixweed	10	1.0	10.0	0.1	0.6	0.6	0.6	4.5
Prickly lettuce	10	1.0	10.0	<0.1	0.4	0.4	0.4	4.4
Field bindweed	10	0.5	5.0	0.1	0.6	0.6	0.6	4.0
Scurf pea	10	0.5	5.0	0.1	0.8	0.8	0.8	4.0
Hedge bindweed	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
White mustard	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Western salsify	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Nightflowering catchfly	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Waterpod	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Weed free	50	10.5	21.0	—	—	—	—	—

Table 71. Bottineau County weed infestations based on 45 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	86.8	88.7	89.4	91.4	2.0	396.0	328.0
Wild oats	84	38.2	45.3	4.4	5.2	0.4	27.6	76.6
Kochia	53	16.7	31.3	1.7	3.2	0.2	23.8	38.4
Wild buckwheat	49	15.6	31.8	1.9	3.8	0.2	36.6	36.2
Common lambsquarters	51	11.8	23.0	0.8	1.6	0.2	15.0	30.7
Redroot pigweed	42	10.4	24.7	0.7	1.7	0.2	8.2	26.2
Canada thistle	33	7.9	23.7	0.7	2.2	0.2	5.8	20.7
Yellow foxtail	16	4.4	28.6	2.9	18.9	0.2	82.0	16.5
Wild mustard	27	6.4	24.2	0.3	1.1	0.4	2.2	16.0
Quackgrass	16	3.2	20.7	1.6	10.6	0.6	42.8	12.3
Perennial sowthistle	16	3.1	20.0	0.5	3.2	0.4	12.8	9.5
Russian thistle	18	2.6	14.4	0.1	0.6	0.2	0.8	8.7
Field bindweed	4	3.8	85.0	0.6	14.6	14.4	14.8	6.8
Barnyardgrass	11	2.3	21.0	0.2	1.9	1.0	3.4	6.5
Common cocklebur	11	1.2	11.0	0.1	0.6	0.2	2.0	5.1
Prostrate spurge	9	0.6	6.3	<0.1	0.3	0.2	0.6	3.6
Wild rose	7	0.4	6.7	<0.1	0.3	0.2	0.4	2.7
Field pennycress	4	0.4	10.0	0.1	1.5	0.2	2.8	2.1
Volunteer sunflower	4	0.6	12.5	<0.1	0.5	0.2	0.8	2.1
Large crabgrass	4	0.3	7.5	<0.1	0.6	0.4	0.8	1.9
Smartweed	4	0.2	5.0	<0.1	0.7	0.4	1.0	1.8
Ragweed	4	0.2	5.0	<0.1	0.4	0.2	0.6	1.7
Greenflower pepperweed	2	0.7	30.0	0.1	6.2	6.2	6.2	1.7
Clover	2	0.7	30.0	<0.1	1.4	1.4	1.4	1.5
Common dandelion	2	0.6	25.0	<0.1	1.2	1.2	1.2	1.4
Prostrate pigweed	2	0.3	15.0	<0.1	0.6	0.6	0.6	1.1
Flixweed	2	0.2	10.0	<0.1	1.6	1.6	1.6	1.0
Marshelder	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.9
Dwarf mallow	2	0.1	5.0	<0.1	0.4	0.4	0.4	0.9
Volunteer wheat	2	0.1	5.0	<0.1	0.6	0.6	0.6	0.9
Weed free	22	5.8	26.0	—	—	—	—	—

Table 72. Bowman County weed infestations based on 15 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	80	46.3	57.9	55.5	69.4	0.2	355.8	202.6
Wild buckwheat	93	53.3	57.1	15.6	16.7	0.6	89.8	120.8
Redroot pigweed	60	20.3	33.9	15.6	26.0	0.2	189.8	76.7
Russian thistle	80	27.0	33.7	2.5	3.1	0.2	10.6	59.5
Common lambsquarters	67	16.3	24.5	1.7	2.5	0.2	15.6	42.4
Wild oats	53	9.3	17.5	4.1	7.7	0.2	30.4	36.7
Field bindweed	33	16.7	50.0	3.8	11.4	1.2	34.4	36.6
Kochia	53	12.0	22.5	1.0	1.9	0.2	7.4	32.2
Field pennycress	33	11.0	33.0	1.4	4.3	0.2	17.4	25.5
Prostrate pigweed	47	8.0	17.1	0.6	1.3	0.2	4.6	25.0
Flixweed	33	8.3	25.0	0.6	1.7	0.2	6.4	20.8
Volunteer sunflower	40	3.7	9.2	0.2	0.4	0.2	0.8	17.4
Downy brome	33	2.7	8.0	0.3	0.8	0.2	2.4	14.4
Knotweeds	27	3.3	12.5	0.2	0.7	0.2	1.4	12.7
Clover	27	2.7	10.0	0.1	0.5	0.4	0.6	11.9
False chamomile	20	3.7	18.3	0.2	0.9	0.6	1.2	10.8
Common dandelion	20	2.7	13.3	0.2	0.9	0.4	1.4	9.8
Wild mustard	20	1.3	6.7	0.2	1.2	0.2	2.6	8.6
Prostrate spurge	13	3.0	22.5	0.3	2.3	0.4	4.2	8.2
Wild vetch	20	1.0	5.0	<0.1	0.2	0.2	0.2	7.8
Large crabgrass	13	2.0	15.0	0.1	1.1	0.6	1.6	6.8
Greenflower pepperweed	7	3.3	50.0	0.5	7.8	7.8	7.8	6.8

Table 72 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Volunteer alfalfa	7	3.7	55.0	0.2	3.4	3.4	3.4	6.4
Dwarf mallow	13	1.3	10.0	0.1	0.7	0.6	0.8	6.0
Wild barley	13	1.3	10.0	0.1	0.4	0.4	0.4	5.9
Yellow foxtail	13	0.7	5.0	<0.1	0.2	0.2	0.2	5.2
Scurf pea	13	0.7	5.0	<0.1	0.3	0.2	0.4	5.2
Prickly lettuce	13	0.7	5.0	<0.1	0.2	0.2	0.2	5.2
Quackgrass	7	1.0	15.0	0.3	5.2	5.2	5.2	4.0
Skeleton weed	7	1.0	15.0	0.1	1.2	1.2	1.2	3.4
Poverty weed	7	0.7	10.0	<0.1	0.4	0.4	0.4	3.0
Common cocklebur	7	0.7	10.0	<0.1	0.4	0.4	0.4	3.0
Roundleaf mallow	7	0.3	5.0	<0.1	0.4	0.4	0.4	2.6
Western salsify	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Flodmans thistle	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Bromegrass	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Perennial sowthistle	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Volunteer wheat	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Weed free	27	4.0	15.0	—	—	—	—	—

Table 73. Burke County weed infestations based on 16 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	85.0	85.0	27.8	27.8	3.6	52.6	183.2
Wild oats	100	61.9	61.9	11.1	11.1	2.2	29.2	121.1
Redroot pigweed	69	25.0	36.4	1.7	2.4	0.2	4.2	51.8
Wild mustard	75	18.1	24.2	1.3	1.8	0.2	4.8	46.2
Perennial sowthistle	25	10.9	43.8	0.8	3.1	2.8	4.2	21.1
Field bindweed	19	7.2	38.3	0.7	3.9	2.4	5.0	15.2
Canada thistle	19	3.1	16.7	0.2	0.9	0.2	1.6	9.8
Common lambsquarters	13	4.4	35.0	0.2	1.9	1.2	2.6	9.1
Field pennycress	19	2.2	11.7	0.1	0.5	0.2	1.2	8.7
Wild buckwheat	13	1.2	10.0	0.1	0.7	0.2	1.2	5.6
Wild barley	13	0.6	5.0	0.1	0.6	0.6	0.6	5.0
Kochia	6	1.9	30.0	0.1	1.4	1.4	1.4	4.2
Quackgrass	6	1.2	20.0	0.1	1.0	1.0	1.0	3.5
Barnyardgrass	6	0.9	15.0	0.1	1.0	1.0	1.0	3.2
Prickly lettuce	6	0.6	10.0	0.1	1.0	1.0	1.0	2.9
Common cocklebur	6	0.3	5.0	0.1	1.0	1.0	1.0	2.5
Weed free	6	0.9	15.0	—	—	—	—	—

Table 74. Burleigh County weed infestations based on 26 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	96	70.2	73.0	15.2	15.8	1.6	38.2	137.6
Wild oats	73	44.8	61.3	3.3	4.5	1.8	15.0	76.9
Common lambsquarters	65	12.1	18.5	1.1	1.6	0.2	11.4	36.4
Wild mustard	46	17.9	38.7	1.3	2.8	0.2	7.0	36.3
Yellow foxtail	46	15.0	32.5	1.4	3.0	0.4	11.2	33.6
Field bindweed	46	14.8	32.1	0.8	1.8	0.6	4.4	32.1
Redroot pigweed	50	11.0	21.9	0.5	1.0	0.2	3.0	28.8
Wild buckwheat	46	7.7	16.7	0.5	1.1	0.2	4.8	24.3
Kochia	38	8.1	21.0	0.4	1.2	0.2	2.4	21.9
Volunteer sunflower	38	6.3	16.5	0.3	0.7	0.2	1.4	19.8
Russian thistle	23	4.2	18.3	0.2	0.7	0.2	1.4	12.3

Table 74 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild rose	12	1.7	15.0	0.1	0.9	0.4	1.8	5.8
Common cocklebur	8	1.3	17.5	0.2	2.3	0.4	4.2	4.3
Canada thistle	8	1.2	15.0	0.1	1.6	0.4	2.8	4.0
Common purslane	8	0.6	7.5	<0.1	0.4	0.2	0.6	3.2
Roundleaf mallow	4	1.3	35.0	0.1	3.0	3.0	3.0	2.9
Smartweed	4	1.2	30.0	0.1	2.8	2.8	2.8	2.7
Dwarf mallow	4	0.8	20.0	0.1	3.6	3.6	3.6	2.4
Ragweed	4	0.6	15.0	0.1	1.4	1.4	1.4	2.0
Field pennycress	4	0.6	15.0	<0.1	0.8	0.8	0.8	1.9
Quackgrass	4	0.4	10.0	<0.1	0.6	0.6	0.6	1.7
Weed free	19	3.5	18.0	—	—	—	—	—

Table 75. Cass County weed infestations based on 70 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	79	41.8	53.2	17.2	21.9	0.2	133.0	108.0
Yellow foxtail	77	33.7	43.7	17.3	22.4	0.2	169.0	99.8
Wild oats	59	16.1	27.4	2.6	4.4	0.2	32.8	41.6
Wild buckwheat	57	13.6	23.9	1.7	2.9	0.2	25.0	36.6
Wild mustard	46	10.9	23.7	0.9	1.9	0.2	11.6	28.2
Common lambsquarters	27	4.7	17.4	0.4	1.6	0.2	8.2	14.8
Redroot pigweed	29	3.9	13.5	0.6	2.2	0.2	33.2	14.8
Prostrate spurge	27	4.8	17.6	0.3	1.1	0.2	4.8	14.5
Volunteer sunflower	21	5.1	24.0	0.7	3.4	0.2	24.6	14.0
Canada thistle	23	3.4	15.0	0.4	1.9	0.2	9.4	12.1
Quackgrass	13	2.9	22.2	0.5	4.0	0.2	12.0	8.3
Ragweed	13	2.4	18.3	0.3	2.2	0.2	10.0	7.3
Kochia	10	1.4	14.3	0.1	1.4	0.2	7.4	5.1
Field bindweed	11	0.9	7.5	0.1	0.5	0.2	1.2	4.8
Common milkweed	9	0.8	9.2	0.1	0.7	0.2	2.2	3.8
Common purslane	6	0.6	11.2	0.1	2.1	0.2	7.8	2.8
Perennial sowthistle	6	0.5	8.7	0.1	1.3	0.2	4.0	2.6
Volunteer soybean	4	0.9	20.0	0.1	1.3	0.2	2.4	2.4
Russian thistle	6	0.4	7.5	<0.1	0.3	0.2	0.6	2.4
Wild rose	6	0.4	6.3	<0.1	0.3	0.2	0.6	2.3
Flixweed	1	1.1	80.0	0.2	10.8	10.8	10.8	2.0
Smartweed	4	0.4	8.3	<0.1	0.4	0.2	0.6	1.8
Field pennycress	4	0.3	6.7	<0.1	0.4	0.2	0.6	1.8
Prickly lettuce	1	0.4	25.0	0.1	6.6	6.6	6.6	1.1
Clover	1	0.3	20.0	<0.1	0.8	0.8	0.8	0.8
Leafy spurge	1	0.1	10.0	<0.1	2.0	2.0	2.0	0.7
Volunteer barley	1	0.1	5.0	<0.1	0.8	0.8	0.8	0.6
Common cocklebur	1	0.1	5.0	<0.2	0.2	0.2	0.2	0.6
Nightflowering catchfly	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.6
Wild vetch	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.6
Weed free	67	23.5	35.0	—	—	—	—	—

Table 76. Cavalier County weed infestations based on 47 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	72.4	74.0	22.0	22.5	1.0	96.8	156.5
Wild oats	85	27.3	32.1	2.8	3.3	0.2	13.6	62.3
Wild buckwheat	81	26.0	32.1	2.0	2.5	0.2	9.0	57.6

Table 76 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Nightflowering catchfly	49	16.8	34.3	2.5	5.1	0.2	41.0	39.0
Wild mustard	68	12.3	18.1	0.7	1.1	0.2	4.0	36.8
Redroot pigweed	64	9.9	15.5	0.6	1.0	0.2	5.0	32.6
Canada thistle	32	3.5	11.0	0.2	0.7	0.2	3.2	14.7
Common lambsquarters	28	4.7	16.9	0.3	1.2	0.2	3.8	14.6
Russian thistle	15	3.3	22.1	0.3	2.0	0.2	10.6	9.0
Prostrate pigweed	19	1.4	7.2	0.1	0.5	0.2	1.0	8.0
Field pennycress	15	2.2	15.0	0.2	1.1	0.2	4.0	7.6
Perennial sowthistle	13	1.3	10.0	0.1	0.7	0.2	1.8	5.7
Dwarf mallow	11	1.6	15.0	0.1	1.0	0.2	3.8	5.4
Kochia	11	1.4	13.0	0.1	1.2	0.2	2.4	5.2
Dock	6	1.6	25.0	0.1	1.8	0.4	3.6	4.0
Yellow foxtail	6	0.5	8.3	<0.1	0.5	0.2	0.8	2.7
Ragweed	4	0.4	10.0	<0.1	0.5	0.2	0.8	1.9
Common cocklebur	4	0.3	7.5	<0.1	0.5	0.2	0.8	1.8
Ball mustard	2	0.3	15.0	<0.1	1.2	1.2	1.2	1.1
Wild rose	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Prostrate spurge	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.8
Weed free	55	7.2	13.1	—	—	—	—	—

Table 77. Dickey County weed infestations based on 29 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	90.0	93.2	180.7	187.2	1.8	396.0	543.9
Yellow foxtail	97	47.8	49.5	43.6	45.1	0.6	301.0	181.6
Redroot pigweed	76	30.7	40.5	10.0	13.2	0.2	77.0	79.3
Common lambsquarters	72	25.2	34.8	4.6	6.4	0.2	48.8	60.0
Wild buckwheat	79	24.1	30.4	2.9	3.6	0.2	38.4	57.3
Wild mustard	69	22.2	32.2	1.8	2.7	0.2	9.2	49.5
Wild oats	31	13.1	42.2	3.6	11.8	0.2	68.4	32.0
Kochia	38	12.1	31.8	1.9	5.1	0.2	18.4	29.2
Field bindweed	28	7.8	28.1	2.0	7.1	0.2	17.6	21.5
Russian thistle	28	8.3	30.0	0.9	3.1	1.6	8.0	19.5
Canada thistle	21	6.9	33.3	1.2	6.0	1.8	10.4	16.7
Volunteer sunflower	21	3.1	15.0	0.3	1.5	0.2	6.0	10.7
Volunteer millet	10	4.0	38.3	0.3	2.9	1.6	4.0	8.1
Common cocklebur	10	3.1	30.0	0.5	4.4	0.6	9.4	7.6
Prostrate pigweed	14	2.2	16.2	0.1	1.0	0.4	2.4	7.2
Ragweed	17	1.0	6.0	<0.1	0.2	0.2	0.4	6.9
Wild rose	14	1.6	11.2	0.3	2.1	1.2	3.8	6.8
Yellow woodsorrel	14	1.6	11.2	0.1	0.6	0.4	1.0	6.4
Quackgrass	7	2.1	30.0	0.3	4.0	0.8	7.2	5.0
Prostrate spurge	10	1.2	11.7	0.1	0.7	0.4	0.8	4.8
Common purslane	7	0.9	12.5	0.1	0.8	0.4	1.2	3.3
Volunteer alfalfa	3	1.7	50.0	0.2	4.4	4.4	4.4	3.2
Field pennycress	7	0.7	10.0	<0.1	0.5	0.4	0.6	3.1
Volunteer rye	3	0.7	20.0	<0.1	1.0	1.0	1.0	1.9
Bromegrass	3	0.5	15.0	<0.1	1.2	1.2	1.2	1.8
Volunteer corn	3	0.2	5.0	<0.1	1.2	1.2	1.2	1.4
Flixweed	3	0.2	5.0	<0.1	1.2	1.2	1.2	1.4
Dock	3	0.2	5.0	<0.1	0.6	0.6	0.6	1.4
Weed free	24	3.3	13.6	—	—	—	—	—

Table 78. Divide County weed infestations based on 22 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	95	85.5	89.5	44.5	46.6	2.2	117.4	221.0
Wild oats	68	15.9	23.3	2.8	4.1	0.2	28.0	45.1
Redroot pigweed	68	14.3	21.0	3.0	4.3	0.2	51.8	44.0
Wild buckwheat	50	18.4	36.8	1.2	2.4	0.2	6.8	37.9
Common lambsquarters	32	5.7	17.9	0.8	2.4	0.2	15.4	18.1
Kochia	23	4.5	20.0	0.3	1.2	0.2	4.0	12.8
Field pennycress	18	2.0	11.2	0.1	0.8	0.4	1.6	8.4
Russian thistle	18	2.0	11.2	0.1	0.6	0.2	1.2	8.4
Flixweed	18	1.1	6.3	0.1	0.5	0.2	1.2	7.4
Dwarf mallow	9	3.4	37.5	0.3	3.5	0.2	6.8	7.2
Wild mustard	18	0.9	5.0	<0.1	0.2	0.2	0.2	7.1
Nightflowering catchfly	14	1.6	11.7	0.1	0.7	0.2	1.0	6.3
Perennial sowthistle	9	0.9	10.0	0.1	0.7	0.6	0.8	4.1
Canada thistle	9	0.5	5.0	0.1	0.7	0.2	1.2	3.6
Prostrate pigweed	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.5
Dock	9	0.5	5.0	<0.1	0.3	0.2	0.4	3.5
Greenflower pepperweed	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.5
Wild rose	5	1.1	25.0	0.1	2.0	2.0	2.0	2.9
Clover	5	0.7	15.0	<0.1	0.6	0.6	0.6	2.3
Field bindweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Ragweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Common dandelion	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Wild barley	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Volunteer sunflower	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Wild vetch	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	36	8.4	23.1	—	—	—	—	—

Table 79. Dunn County weed infestations based on 16 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	88	66.6	76.1	21.3	24.3	5.6	66.2	145.3
Wild oats	81	55.0	67.7	10.2	12.6	4.4	19.0	105.9
Field bindweed	69	30.9	45.0	6.4	9.4	1.8	26.2	68.9
Redroot pigweed	69	30.3	44.1	4.6	6.7	1.4	28.8	64.0
Wild buckwheat	63	28.7	46.0	4.6	7.3	2.8	13.6	60.2
Common lambsquarters	56	23.1	41.1	1.9	3.3	2.2	4.8	46.2
Russian thistle	63	14.7	23.5	1.1	1.8	0.4	4.4	38.2
Common cocklebur	50	15.6	31.3	1.1	2.1	0.4	4.2	34.8
Yellow foxtail	25	10.9	43.8	2.4	9.7	3.8	18.8	24.9
Volunteer sunflower	38	9.4	25.0	0.6	1.6	0.4	2.4	23.3
Wild mustard	25	5.6	22.5	1.2	4.8	0.8	11.4	16.7
Prickly lettuce	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.4
Weed free	6	0.6	10.0	—	—	—	—	—

Table 80. Eddy County weed infestations based on 14 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	81.1	81.1	160.2	160.2	0.2	356.4	488.3
Yellow foxtail	64	26.8	41.7	28.8	44.7	0.4	258.8	115.3
Common lambsquarters	64	18.2	28.3	1.1	1.7	0.2	4.6	42.2
Wild mustard	50	20.7	41.4	2.0	4.0	0.4	10.8	42.0
Prostrate spurge	43	18.2	42.5	4.1	9.5	0.2	40.6	42.0
Wild buckwheat	71	15.7	22.0	0.8	1.1	0.2	3.0	41.3
Wild oats	64	15.7	24.4	1.8	2.7	0.2	8.6	41.2

Table 80 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Redroot pigweed	50	14.3	28.6	1.0	1.9	0.6	4.0	33.2
Prostrate pigweed	43	11.4	26.7	1.3	3.0	0.4	13.0	28.7
Russian thistle	29	8.9	31.3	0.6	2.0	0.6	3.2	19.8
Common cocklebur	29	7.5	26.2	0.8	2.7	0.2	9.8	18.8
Common purslane	14	6.4	45.0	1.4	9.8	0.2	19.4	14.5
Canada thistle	21	2.5	11.7	0.5	2.2	0.8	4.4	10.7
Yellow woodsorrel	21	1.8	8.3	0.1	0.4	0.2	0.8	9.1
Western snowberry	7	3.9	55.0	0.5	6.4	6.4	6.4	7.4
Common milkweed	14	0.7	5.0	<0.1	0.3	0.2	0.4	5.6
Volunteer wheat	7	1.8	25.0	0.1	1.8	1.8	1.8	4.5
Volunteer flax	7	1.1	15.0	0.1	2.0	2.0	2.0	3.8
Kochia	7	1.1	15.0	<0.1	0.6	0.6	0.6	3.6
Field pennycress	7	0.7	10.0	<0.1	0.4	0.4	0.4	3.2
Roundleaf mallow	7	0.4	5.0	<0.1	0.2	0.2	0.2	2.8
Quackgrass	7	0.4	5.0	<0.1	0.6	0.6	0.6	2.8
Perennial sowthistle	7	0.4	5.0	<0.1	0.6	0.6	0.6	2.8
Flixweed	7	0.4	5.0	<0.1	0.4	0.4	0.4	2.8
Dwarf mallow	7	0.4	5.0	<0.1	0.2	0.2	0.2	2.8
Greenflower pepperweed	7	0.4	5.0	<0.1	0.4	0.4	0.4	2.8
Weed free	21	9.3	43.3	—	—	—	—	—

Table 81. Emmons County weed infestations based on 32 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Field bindweed	84	43.0	50.9	2.9	3.4	0.4	18.6	77.8
Green foxtail	84	39.2	46.5	4.0	4.7	0.4	14.6	76.6
Wild oats	78	40.6	52.0	2.5	3.2	0.6	7.8	72.4
Wild mustard	69	30.2	43.9	1.7	2.4	0.2	6.0	57.0
Russian thistle	59	13.6	22.9	0.6	1.1	0.2	3.4	34.9
Yellow foxtail	59	11.7	19.7	1.3	2.1	0.2	17.0	34.4
Kochia	66	7.7	11.7	0.3	0.5	0.2	1.4	30.3
Common lambsquarters	63	7.3	11.7	0.3	0.5	0.2	1.8	29.0
Wild rose	25	3.7	15.0	0.2	0.7	0.2	2.0	12.5
Marshelder	22	2.5	11.4	0.1	0.6	0.2	1.8	10.1
Wild buckwheat	19	2.8	15.0	0.1	0.7	0.2	1.6	9.4
Redroot pigweed	16	2.7	17.0	0.1	0.7	0.2	1.2	8.1
Volunteer sunflower	9	0.5	5.0	<0.1	0.2	0.2	0.2	3.6
Canada thistle	3	0.8	25.0	<0.1	1.0	1.0	1.0	1.9
Prickly lettuce	3	0.5	15.0	<0.1	0.6	0.6	0.6	1.6
Common cocklebur	3	0.5	15.0	<0.1	0.6	0.6	0.6	1.6
Field pennycress	3	0.5	15.0	<0.1	0.6	0.6	0.6	1.6
Flixweed	3	0.5	15.0	<0.1	0.8	0.8	0.8	1.6
Quackgrass	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Perennial sowthistle	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Leafy spurge	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Greenflower pepperweed	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Weed free	19	2.2	11.7	—	—	—	—	—

Table 82. Foster County weed infestations based on 75 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	96	77.4	80.6	69.1	72.0	0.4	352.6	270.6
Wild mustard	57	19.3	33.7	2.1	3.6	0.2	19.0	43.3
Redroot pigweed	52	16.2	31.2	3.1	6.0	0.2	83.0	40.8

Table 82 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	39	16.5	42.8	3.9	10.1	0.4	71.6	38.5
Wild buckwheat	51	11.9	23.4	1.1	2.3	0.2	21.4	31.4
Common lambsquarters	43	11.1	26.1	1.2	2.8	0.2	20.4	28.2
Kochia	31	6.8	22.2	3.8	12.3	0.2	201.6	25.9
Wild oats	35	11.0	31.7	1.4	3.9	0.2	15.8	25.7
Russian thistle	29	8.3	28.4	1.3	4.5	0.2	25.4	21.2
Canada thistle	28	6.1	21.7	1.0	3.5	0.2	15.6	17.7
Prostrate pigweed	9	3.8	40.7	0.7	7.1	0.6	21.8	8.5
Perennial sowthistle	15	2.6	17.7	0.2	1.4	0.2	5.2	8.0
Field bindweed	9	2.7	28.6	0.4	4.8	0.8	23.4	6.8
Field pennycress	13	1.6	12.0	0.1	0.9	0.2	2.2	6.3
Flixweed	9	1.0	10.7	0.2	1.9	0.2	10.2	4.5
Ragweed	8	1.0	12.5	0.1	0.9	0.2	1.8	3.8
Wild rose	8	0.7	9.2	<0.1	0.6	0.2	1.0	3.5
Smartweed	5	0.3	6.3	<0.1	0.3	0.2	0.4	2.1
Quackgrass	4	0.3	8.3	0.1	2.9	0.6	6.0	1.9
Dwarf mallow	4	0.5	11.7	<0.1	1.2	0.2	2.6	1.9
Wild vetch	3	0.8	30.0	0.1	3.3	2.6	4.0	1.9
Leafy spurge	1	0.9	65.0	0.1	9.2	9.2	9.2	1.6
Common cocklebur	3	0.3	12.5	<0.1	1.2	0.2	2.2	1.3
Volunteer sunflower	1	0.7	50.0	0.1	4.6	4.6	4.6	1.3
Common milkweed	1	0.3	25.0	<0.1	1.6	1.6	1.6	0.8
Dock	1	0.1	10.0	<0.1	1.6	1.6	1.6	0.6
Skeleton weed	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Marshelder	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Horsetail	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.5
Weed free	39	9.9	25.5	—	—	—	—	—

Table 83. Golden Valley County weed infestations based on 10 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	90	46.5	51.7	31.0	34.5	0.2	121.8	148.9
Russian thistle	60	34.5	57.5	6.9	11.5	0.2	25.8	70.6
Wild oats	60	24.0	40.0	5.5	9.1	0.6	17.2	56.8
Redroot pigweed	80	21.5	26.9	2.4	3.0	0.2	10.6	53.8
Volunteer sunflower	40	12.5	31.3	1.9	4.8	0.2	17.0	30.3
Wild buckwheat	40	10.5	26.2	0.8	1.9	0.4	4.2	25.7
Prostrate pigweed	40	8.0	20.0	0.9	2.3	0.2	7.4	23.4
Wild mustard	20	4.0	20.0	0.2	1.2	0.8	1.6	11.2
Clover	20	1.5	7.5	0.2	1.0	0.2	1.8	8.6
Common lambsquarters	10	1.5	15.0	0.1	1.0	1.0	1.0	5.1
Nightflowering catchfly	10	1.5	15.0	0.1	0.8	0.8	0.8	5.0
Field bindweed	10	0.5	5.0	0.1	0.6	0.6	0.6	4.0
Wild rose	10	0.5	5.0	0.1	0.8	0.8	0.8	4.0
Common dandelion	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Kochia	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Downy brome	10	0.5	5.0	<0.1	0.4	0.4	0.4	3.9
Prostrate spurge	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Weed free	60	18.0	30.0	—	—	—	—	—

Table 84. Grand Forks County weed infestations based on 45 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	99.1	99.1	81.3	81.3	2.6	309.8	322.1
Wild oats	60	39.8	66.3	4.3	7.2	0.6	36.4	69.8
Wild buckwheat	69	37.8	54.8	2.9	4.2	0.2	12.4	67.5
Redroot pigweed	71	32.9	46.2	3.5	4.9	0.4	28.0	64.7
Wild mustard	56	25.2	45.4	2.1	3.7	0.2	16.4	48.6
Yellow foxtail	22	12.2	55.0	3.3	14.9	0.6	51.2	27.3
Canada thistle	33	9.6	28.7	1.0	2.9	0.2	10.4	23.0
Kochia	24	11.0	45.0	1.1	4.5	0.2	20.2	21.7
Volunteer sunflower	24	9.3	38.2	1.1	4.7	0.2	21.8	20.1
Common lambsquarters	20	6.4	32.2	0.5	2.4	0.2	6.8	14.2
Russian thistle	18	5.7	31.9	0.5	2.8	0.2	8.2	12.8
Nightflowering catchfly	9	4.9	55.0	0.6	6.3	1.2	14.2	9.2
Wild rose	9	1.6	17.5	0.1	1.3	0.2	3.2	4.8
Perennial sowthistle	4	0.7	15.0	0.1	1.5	0.6	2.4	2.3
Field pennycress	2	1.2	55.0	0.1	5.4	5.4	5.4	2.2
Common milkweed	4	0.3	7.5	<0.1	0.4	0.4	0.4	1.9
Barnyardgrass	2	0.9	40.0	0.1	3.8	3.8	3.8	1.8
Hedge bindweed	2	0.8	35.0	0.1	2.4	2.4	2.4	1.6
Ragweed	2	0.4	20.0	<0.1	1.0	1.0	1.0	1.2
Leafy spurge	2	0.4	20.0	<0.1	0.8	0.8	0.8	1.2
Weed free	11	2.4	22.0	—	—	—	—	—

Table 85. Grant County weed infestations based on 19 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	74	43.4	58.9	14.7	19.9	5.2	56.0	102.2
Redroot pigweed	63	32.1	50.8	11.1	17.6	1.2	88.2	79.0
Russian thistle	37	22.4	60.7	9.0	24.5	0.2	68.0	55.7
Wild buckwheat	63	24.2	38.3	3.0	4.8	0.6	9.4	52.3
Yellow foxtail	21	12.9	61.2	13.0	61.8	1.8	185.6	50.3
Wild oats	42	21.8	51.9	4.1	9.6	4.4	13.8	45.4
Common cocklebur	32	16.3	51.7	3.5	11.1	2.4	27.2	35.0
Quackgrass	16	12.4	78.3	6.9	43.9	7.0	98.2	33.8
Field bindweed	32	14.7	46.7	3.0	9.5	1.4	23.8	32.3
Common lambsquarters	32	16.8	53.3	2.1	6.7	2.6	16.0	32.3
Marshelder	26	15.0	57.0	2.0	7.7	0.2	15.2	28.5
Volunteer sunflower	37	8.2	22.1	0.8	2.3	0.2	10.4	22.4
Wild rose	26	8.7	33.0	0.6	2.2	0.2	6.2	18.8
Kochia	26	5.8	22.0	0.8	3.0	0.2	7.8	16.4
Wild mustard	16	2.1	13.3	0.4	2.3	0.4	4.4	8.2
Leafy spurge	11	2.6	25.0	0.4	4.1	3.0	5.2	7.1
Wild barley	5	1.1	20.0	0.8	15.6	15.6	15.6	4.7
Volunteer corn	5	1.8	35.0	0.3	5.0	5.0	5.0	4.2
Prostrate pigweed	5	0.8	15.0	0.1	1.0	1.0	1.0	2.7
Field pennycress	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	5	0.5	10.0	—	—	—	—	—

Table 86. Griggs County weed infestations based on 18 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	79.2	79.2	32.5	32.5	2.8	128.2	188.4
Wild buckwheat	94	32.2	34.1	2.5	2.6	0.4	15.4	69.4
Wild mustard	72	31.7	43.8	2.1	2.8	0.2	7.6	60.5

Table 86 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild oats	61	21.9	35.9	2.5	4.2	0.8	23.0	48.3
Redroot pigweed	61	12.2	20.0	1.3	2.1	0.2	14.0	35.6
Yellow foxtail	44	14.7	33.1	2.4	5.3	0.4	16.0	35.1
Russian thistle	50	8.3	16.7	0.4	0.9	0.2	2.8	26.0
Shepherdspurse	50	7.5	15.0	0.6	1.2	0.2	8.2	25.6
Common lambsquarters	56	6.1	11.0	0.3	0.5	0.2	1.0	25.2
Canada thistle	56	4.7	8.5	0.4	0.7	0.2	3.6	24.1
Prostrate pigweed	44	6.4	14.4	0.3	0.8	0.2	3.2	22.0
Common purslane	28	6.7	24.0	0.7	2.4	0.2	9.0	17.5
Wild rose	28	3.9	14.0	0.3	1.2	0.2	2.6	13.9
Fumitory	17	5.0	30.0	0.6	3.8	0.4	9.4	12.0
Nightflowering catchfly	17	2.8	16.7	0.2	1.0	0.2	2.6	8.7
Perennial sowthistle	22	1.1	5.0	<0.1	0.2	0.2	0.2	8.6
Dwarf mallow	17	2.2	13.3	0.1	0.7	0.2	1.2	8.0
Prostrate spurge	11	1.4	12.5	0.1	0.8	0.2	1.4	5.3
Horsetail	11	0.8	7.5	<0.1	0.4	0.2	0.6	4.6
Kochia	6	0.6	10.0	<0.1	0.4	0.4	0.4	2.5
Weed free	50	9.2	18.3	—	—	—	—	—

Table 87. Hettinger County weed infestations based on 20 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild oats	65	41.0	63.1	22.4	34.5	3.6	289.0	114.9
Green foxtail	90	47.7	53.1	10.6	11.8	4.2	27.8	102.6
Redroot pigweed	60	19.7	32.9	2.8	4.6	0.2	22.2	46.2
Field bindweed	40	15.5	38.7	2.9	7.3	0.6	17.4	35.6
Volunteer sunflower	45	9.7	21.7	0.7	1.6	0.2	4.0	26.4
Wild buckwheat	25	5.5	22.0	0.6	2.4	0.2	8.4	15.3
Russian thistle	20	6.3	31.3	1.0	5.0	0.2	11.2	15.3
Yellow foxtail	20	6.0	30.0	1.0	4.8	2.0	7.4	14.9
Wild barley	15	3.0	20.0	1.5	9.9	1.0	27.4	11.5
Kochia	15	3.5	23.3	0.3	2.3	0.4	5.8	9.3
Wild mustard	15	2.7	18.3	0.4	2.9	0.8	7.0	8.8
Common lambsquarters	15	1.0	6.7	0.1	0.5	0.2	1.0	6.2
Leafy spurge	5	1.7	35.0	0.2	4.2	4.2	4.2	3.9
Dock	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Common cocklebur	5	1.2	25.0	0.1	1.8	1.8	1.8	3.1
Greenflower pepperweed	5	0.5	10.0	0.1	1.6	1.6	1.6	2.4
Wild rose	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.2
Prickly lettuce	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Weed free	40	6.5	16.2	—	—	—	—	—

Table 88. Kidder County weed infestations based on 19 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	98.9	98.9	137.8	137.8	20.0	357.0	453.9
Wild buckwheat	100	45.0	45.0	5.6	5.6	0.6	24.4	91.5
Wild mustard	79	36.1	45.7	5.8	7.3	0.2	23.0	75.9
Russian thistle	74	32.6	44.3	7.3	9.8	0.2	32.0	74.1
Redroot pigweed	58	22.1	38.2	4.3	7.3	0.2	35.4	51.3
Common lambsquarters	63	21.6	34.2	3.2	5.1	0.2	18.6	50.2
Field bindweed	58	18.9	32.7	3.0	5.2	1.8	12.2	45.2
Quackgrass	32	15.0	47.5	6.1	19.3	2.6	85.2	39.8
Volunteer sunflower	37	14.2	38.6	4.5	12.2	0.2	48.2	37.0

Table 88 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild oats	37	17.1	46.4	2.3	6.3	2.6	12.4	34.8
Kochia	53	9.2	17.5	1.0	2.0	0.4	8.8	29.2
Field pennycress	37	9.2	25.0	0.9	2.3	0.2	5.8	23.5
Yellow foxtail	16	10.0	63.3	1.8	11.7	6.6	16.4	19.6
Canada thistle	21	5.0	23.7	0.8	3.8	3.2	4.4	13.9
Prostrate pigweed	21	2.4	11.2	0.3	1.6	0.6	3.6	10.2
Marshelder	16	2.9	18.3	0.4	2.5	0.6	5.6	9.1
Greenflower pepperweed	21	1.8	8.7	0.1	0.4	0.2	0.8	9.1
Perennial sowthistle	16	2.6	16.7	0.2	1.3	0.8	2.4	8.4
Prostrate spurge	16	1.1	6.7	<0.1	0.3	0.2	0.4	6.4
Skeleton weed	11	1.8	17.5	0.1	0.9	0.8	1.0	5.6
Flixweed	11	1.3	12.5	0.1	0.8	0.4	1.2	5.0
Wild four-o'clock	5	0.8	15.0	0.1	1.2	1.2	1.2	2.7
Wild rose	5	0.8	15.0	<0.1	0.8	0.8	0.8	2.6
Smartweed	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Dwarf mallow	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	5	1.1	20.0	—	—	—	—	—

Table 89. Lamoure County weed infestations based on 32 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	88.1	88.1	158.2	158.2	2.6	396.0	490.7
Yellow foxtail	91	50.2	55.3	27.0	29.8	0.2	281.8	143.3
Wild buckwheat	81	39.1	48.1	5.2	6.5	0.2	39.0	78.4
Redroot pigweed	66	26.1	39.8	10.6	16.2	0.2	128.8	72.7
Wild oats	53	19.7	37.1	7.7	14.5	0.2	137.4	55.4
Common lambsquarters	66	14.4	21.9	4.3	6.6	0.2	104.6	46.3
Wild mustard	69	15.2	22.0	1.4	2.0	0.2	13.8	41.3
Prostrate pigweed	38	6.9	18.3	0.8	2.1	0.2	6.4	21.3
Kochia	38	5.5	14.6	0.4	1.2	0.2	4.0	19.0
Yellow woodsorrel	38	5.8	15.4	0.3	0.8	0.2	1.8	19.0
Quackgrass	16	5.5	35.0	2.5	15.8	1.0	68.6	16.5
Prostrate spurge	34	4.5	13.2	0.2	0.7	0.2	3.6	16.5
Common cocklebur	9	4.7	50.0	0.6	6.7	0.2	10.6	9.3
Common purslane	19	1.9	10.0	0.1	0.6	0.2	1.2	8.4
Canada thistle	19	1.4	7.5	<0.1	0.6	0.2	1.8	7.9
Russian thistle	16	1.1	7.0	0.1	0.3	0.2	0.4	6.4
Field pennycress	9	2.5	26.7	0.1	1.5	1.2	1.8	5.9
Wild rose	9	1.1	11.7	0.1	1.3	0.6	2.2	4.5
Volunteer sunflower	6	1.4	22.5	0.1	1.9	0.2	3.6	3.8
Field bindweed	6	0.8	12.5	<0.1	0.6	0.6	0.6	3.0
Ragweed	6	0.3	5.0	<0.1	0.3	0.2	0.4	2.4
Volunteer alfalfa	3	0.8	25.0	0.1	2.0	2.0	2.0	2.0
Skeleton weed	3	0.6	20.0	0.1	2.0	2.0	2.0	1.8
Flixweed	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.4
Smartweed	3	0.2	5.0	<0.1	1.4	1.4	1.4	1.3
Barnyardgrass	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Prickly lettuce	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Greenflower pepperweed	3	0.2	5.0	<0.1	0.4	0.4	0.4	1.2
Weed free	22	5.2	23.6	—	—	—	—	—

Table 90. Logan County weed infestations based on 19 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	96.6	96.6	149.7	149.7	3.4	323.8	479.2
Wild buckwheat	95	53.7	56.7	6.9	7.3	0.8	29.2	101.4
Wild mustard	89	45.3	50.6	8.6	9.6	0.6	31.4	95.1
Redroot pigweed	74	38.4	52.1	13.1	17.8	0.2	117.6	93.6
Russian thistle	68	45.5	66.5	9.5	13.9	1.8	43.6	90.5
Common lambsquarters	74	44.5	60.4	8.8	12.0	1.6	34.6	89.6
Wild oats	47	30.3	63.9	11.0	23.2	2.2	99.8	71.7
Yellow foxtail	26	13.4	51.0	3.3	12.4	1.6	28.6	29.8
Field bindweed	37	9.5	25.7	2.4	6.5	0.2	30.8	27.4
Kochia	26	6.3	24.0	0.7	2.7	0.4	9.8	16.7
Wild rose	26	5.5	21.0	0.4	1.5	0.6	3.2	15.2
Prostrate pigweed	21	4.5	21.2	0.5	2.4	0.6	5.0	12.7
Canada thistle	16	4.2	26.7	0.8	5.0	3.0	7.6	11.3
Perennial sowthistle	11	3.7	35.0	1.1	10.9	3.6	18.2	9.9
Ragweed	16	3.4	21.7	0.4	2.5	0.8	5.6	9.6
Skeleton weed	16	2.9	18.3	0.2	1.2	0.4	2.0	8.6
Prostrate spurge	11	3.7	35.0	0.3	3.1	0.6	5.6	8.0
Field pennycress	16	1.6	10.0	0.1	0.7	0.2	1.8	7.1
Volunteer sunflower	11	1.8	17.5	0.1	0.9	0.4	1.4	5.6
Quackgrass	5	1.8	35.0	0.4	7.0	7.0	7.0	4.5
Common cocklebur	5	1.6	30.0	0.2	4.4	4.4	4.4	3.9
Common purslane	5	1.6	30.0	0.2	4.2	4.2	4.2	3.8
Silver cinquefoil	5	1.3	25.0	0.1	2.0	2.0	2.0	3.3
Common milkweed	5	1.1	20.0	0.2	4.4	4.4	4.4	3.3
Nightflowering catchfly	5	1.1	20.0	0.1	1.2	1.2	1.2	3.0
Dwarf mallow	5	0.8	15.0	<0.1	0.8	0.8	0.8	2.6
Greenflower pepperweed	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.4
Flixweed	5	0.8	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	5	2.9	55.0	—	—	—	—	—

Table 91. McHenry County weed infestations based on 28 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	90.0	90.0	23.6	23.6	2.6	94.6	178.5
Wild buckwheat	61	33.2	54.7	2.4	3.9	0.8	13.0	59.0
Wild oats	57	32.9	57.5	3.0	5.3	0.6	20.6	59.0
Redroot pigweed	61	12.5	20.6	0.6	1.0	0.4	3.0	34.2
Common lambsquarters	39	13.0	33.2	0.9	2.4	0.2	5.4	28.3
Wild mustard	36	12.1	34.0	0.6	1.7	0.2	5.8	25.4
Russian thistle	32	8.0	25.0	0.6	1.8	0.2	8.0	20.1
Volunteer sunflower	21	3.4	15.8	0.1	0.7	0.4	1.8	10.9
Kochia	18	3.4	19.0	0.2	1.1	0.4	3.0	9.8
Leafy spurge	14	3.4	23.7	0.6	4.5	0.4	9.2	9.7
Canada thistle	14	3.9	27.5	0.3	2.3	0.4	4.8	9.5
Field bindweed	7	3.6	50.0	0.4	5.0	3.4	6.6	6.8
Common cocklebur	4	1.4	40.0	0.2	4.4	4.4	4.4	3.0
Wild rose	4	0.9	25.0	0.1	4.0	4.0	4.0	2.4
Common purslane	4	0.7	20.0	0.1	1.6	1.6	1.6	2.0
Perennial sowthistle	4	0.7	20.0	<0.1	1.2	1.2	1.2	2.0
Greenflower pepperweed	4	0.5	15.0	<0.1	0.8	0.8	0.8	1.8
Weed free	21	5.0	23.3	—	—	—	—	—

Table 92. McIntosh County weed infestations based on 25 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	96.0	96.0	135.1	135.1	1.8	375.2	444.5
Wild mustard	88	55.8	63.4	15.4	17.5	0.6	146.0	121.1
Russian thistle	80	39.8	49.7	10.5	13.1	0.2	56.6	90.9
Wild buckwheat	96	44.0	45.8	5.6	5.8	0.2	42.0	89.0
Common lambsquarters	88	40.8	46.4	6.6	7.6	0.4	53.8	85.6
Redroot pigweed	80	31.4	39.2	9.3	11.7	0.2	75.6	79.8
Yellow foxtail	48	24.4	50.8	5.4	11.3	0.2	25.0	53.1
Wild oats	36	14.4	40.0	2.8	7.9	0.4	30.8	33.0
Wild rose	48	8.6	17.9	0.6	1.3	0.2	2.6	26.0
Canada thistle	24	12.0	50.0	2.4	10.1	2.8	21.4	25.7
Common cocklebur	28	5.6	20.0	0.4	1.4	0.2	3.8	15.8
Quackgrass	20	5.8	29.0	1.0	4.8	1.2	15.8	14.7
Kochia	24	5.2	21.7	0.4	1.8	0.2	5.0	14.2
Skeleton weed	24	4.2	17.5	0.2	1.0	0.2	2.2	12.8
Prostrate pigweed	12	4.8	40.0	0.6	4.8	1.0	11.0	10.1
Field bindweed	16	3.4	21.2	0.6	3.4	0.4	12.0	10.0
Ragweed	16	3.0	18.8	0.5	3.3	0.2	10.8	9.5
Perennial sowthistle	8	4.4	55.0	0.6	7.4	2.4	12.4	8.4
Field pennycress	12	2.6	21.7	0.3	2.4	0.4	6.0	7.3
Prostrate spurge	16	1.6	10.0	0.1	0.8	0.2	2.2	7.2
Hedge bindweed	12	1.6	13.3	0.1	1.2	0.2	3.0	5.9
Volunteer sunflower	8	2.4	30.0	0.4	4.4	0.2	8.6	5.9
Common purslane	8	1.2	15.0	0.1	1.8	1.2	2.4	4.2
Dwarf mallow	8	1.0	12.5	0.1	0.9	0.8	1.0	3.8
Nightflowering catchfly	4	1.4	35.0	0.1	2.2	2.2	2.2	2.9
Dock	4	0.8	20.0	0.1	2.0	2.0	2.0	2.3
Marshelder	4	0.6	15.0	<0.1	0.8	0.8	0.8	2.0
Barnyardgrass	4	0.4	10.0	<0.1	0.6	0.6	0.6	1.8
Smartweed	4	0.4	10.0	<0.1	1.0	1.0	1.0	1.8
Common dandelion	4	0.2	5.0	<0.1	0.4	0.4	0.4	1.6

Table 93. McKenzie County weed infestations based on 19 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	80.5	80.5	74.7	74.7	0.8	313.8	288.2
Wild oats	79	39.2	49.7	12.1	15.3	0.4	59.2	93.7
Wild buckwheat	63	20.0	31.7	1.8	2.9	0.2	8.8	45.3
Russian thistle	63	16.8	26.7	1.5	2.4	0.2	9.4	41.4
Redroot pigweed	68	12.4	18.1	1.1	1.6	0.2	9.6	37.7
Common lambsquarters	37	11.3	30.7	0.7	1.9	0.4	5.2	25.3
Kochia	37	6.1	16.4	0.7	1.9	0.2	5.8	20.0
Field pennycress	26	5.8	22.0	0.5	1.9	0.2	7.6	15.7
Prostrate pigweed	26	2.9	11.0	0.3	1.3	0.2	5.6	12.5
Flixweed	26	2.1	8.0	0.1	0.4	0.2	1.2	11.1
Wild mustard	16	2.9	18.3	0.1	0.9	0.8	1.2	8.5
Common dandelion	5	2.9	55.0	0.2	3.6	3.6	3.6	5.1
Prostrate spurge	11	1.3	12.5	0.1	0.7	0.2	1.2	5.0
Wild rose	11	0.8	7.5	0.1	1.0	0.4	1.6	4.5
Field bindweed	5	2.1	40.0	0.2	3.2	3.2	3.2	4.3
Perennial sowthistle	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.3
Hedge bindweed	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Common purslane	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Prickly lettuce	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	21	2.9	13.7	—	—	—	—	—

Table 94. McLean County weed infestations based on 40 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.9	95.9	84.2	84.2	2.8	388.4	325.6
Wild oats	65	22.4	34.4	3.3	5.1	0.4	55.4	51.8
Redroot pigweed	58	12.1	21.1	1.2	2.1	0.2	22.0	34.1
Common lambsquarters	25	4.6	18.5	0.3	1.1	0.2	2.6	13.6
Russian thistle	15	4.2	28.3	0.6	3.8	0.2	18.4	10.6
Wild buckwheat	15	3.6	24.2	0.3	1.7	0.4	5.4	9.2
Perennial sowthistle	8	2.5	33.3	0.3	3.7	2.2	5.4	5.6
Wild mustard	13	1.0	8.0	<0.1	0.3	0.2	0.6	5.3
Field pennycress	3	2.5	100.0	0.4	15.4	15.4	15.4	4.2
Kochia	8	1.0	13.3	<0.1	0.6	0.2	1.2	3.6
Field bindweed	5	0.9	17.5	0.2	4.0	2.6	5.4	3.0
Wild rose	5	1.1	22.5	0.1	1.6	0.2	3.0	3.0
Yellow foxtail	5	0.4	7.5	<0.1	0.7	0.2	1.2	2.1
Barnyardgrass	3	1.0	40.0	<0.1	2.0	2.0	2.0	1.9
Canada thistle	3	0.4	15.0	<0.1	1.8	1.8	1.8	1.3
Smartweed	3	0.4	15.0	<0.1	0.6	0.6	0.6	1.2
Roundleaf mallow	3	0.2	10.0	<0.1	0.4	0.4	0.4	1.1
Skeleton weed	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Witchgrass	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Common milkweed	3	0.1	5.0	<0.1	0.6	0.6	0.6	1.0
Weed free	8	2.7	36.7	—	—	—	—	—

Table 95. Mercer County weed infestations based on 11 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	94.1	94.1	83.1	83.1	2.8	318.4	321.2
Redroot pigweed	82	34.1	41.7	14.8	18.1	0.4	97.2	96.0
Wild buckwheat	64	25.5	40.0	2.0	3.1	0.6	8.2	51.2
Wild oats	64	16.4	25.7	1.1	1.8	0.4	4.6	40.2
Russian thistle	45	5.5	12.0	0.3	0.7	0.2	1.4	21.3
Wild mustard	27	9.5	35.0	0.6	2.1	0.4	5.2	20.0
Field bindweed	18	7.7	42.5	1.5	8.3	7.8	8.8	17.3
Common lambsquarters	18	6.8	37.5	0.5	2.7	1.2	4.2	14.0
Prostrate pigweed	9	7.3	80.0	0.8	9.2	9.2	9.2	12.3
Common cocklebur	18	3.2	17.5	0.1	0.8	0.4	1.2	9.6
Sandbur	18	1.8	10.0	0.1	0.4	0.2	0.6	8.0
Kochia	18	1.8	10.0	0.1	0.4	0.2	0.6	8.0
Yellow foxtail	9	2.3	25.0	0.1	1.6	1.6	1.6	5.6
Wild rose	9	1.8	20.0	0.1	1.2	1.2	1.2	5.1
Volunteer sunflower	9	1.8	20.0	0.1	1.0	1.0	1.0	5.1
Common milkweed	9	1.4	15.0	0.1	1.0	1.0	1.0	4.6
Barnyardgrass	9	0.9	10.0	0.1	0.6	0.6	0.6	4.1
Field pennycress	9	0.9	10.0	<0.1	0.4	0.4	0.4	4.0
Weed free	9	0.5	5.0	—	—	—	—	—

Table 96. Morton County weed infestations based on 20 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	95.0	95.0	145.3	145.3	6.8	396.0	467.3
Redroot pigweed	70	43.2	61.8	21.6	30.9	0.2	197.8	117.0
Wild buckwheat	100	37.7	37.7	4.7	4.7	0.2	15.8	82.0
Common lambsquarters	70	27.5	39.3	4.6	6.6	0.2	35.0	61.6
Wild oats	35	16.0	45.7	4.1	11.8	0.4	61.0	37.3

Table 96 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Russian thistle	50	14.7	29.5	2.4	4.7	0.2	24.6	36.9
Wild mustard	50	14.7	29.5	2.2	4.3	0.2	22.2	36.5
Kochia	30	4.0	13.3	1.3	4.3	0.2	18.6	17.0
Wild rose	25	4.0	16.0	0.3	1.4	0.6	2.2	13.1
Prostrate pigweed	10	5.2	52.5	1.1	11.3	6.4	16.2	11.2
Field bindweed	15	3.7	25.0	0.4	2.9	2.2	3.4	9.8
Field pennycress	15	2.7	18.3	0.4	2.4	0.2	6.8	8.6
Common cocklebur	5	2.2	45.0	0.3	5.0	5.0	5.0	4.5
Barnyardgrass	10	1.0	10.0	<0.1	0.4	0.2	0.6	4.4
Volunteer sunflower	10	0.7	7.5	<0.1	0.3	0.2	0.4	4.2
Leafy spurge	5	0.7	15.0	0.1	1.2	1.2	1.2	2.6
Ragweed	5	0.2	5.0	0.1	1.8	1.8	1.8	2.1
Prostrate spurge	5	0.2	5.0	<0.1	0.6	0.6	0.6	2.0
Skeleton weed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Perennial sowthistle	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Dwarf mallow	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Large crabgrass	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Weed free	5	0.7	15.0	—	—	—	—	—

Table 97. Mountrail County weed infestations based on 28 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	82.3	82.3	25.3	25.3	3.0	45.2	174.8
Wild oats	96	43.9	45.6	7.4	7.7	0.2	27.4	93.3
Redroot pigweed	75	25.7	34.3	1.9	2.5	0.2	9.0	55.1
Wild mustard	54	12.7	23.7	0.9	1.8	0.2	5.4	32.7
Perennial sowthistle	36	12.9	36.0	1.1	3.0	0.6	6.2	27.3
Common lambsquarters	36	12.3	34.5	0.8	2.3	0.4	3.4	26.2
Yellow foxtail	21	6.8	31.7	0.8	4.0	0.8	7.4	15.9
Russian thistle	25	4.6	18.6	0.3	1.0	0.4	2.0	13.6
Canada thistle	18	3.4	19.0	0.2	1.3	0.4	2.4	9.9
Volunteer sunflower	21	1.4	6.7	0.1	0.3	0.2	0.4	8.7
Wild buckwheat	14	1.8	12.5	0.1	0.8	0.2	1.4	6.8
Field pennycress	11	0.7	6.7	<0.1	0.3	0.2	0.4	4.4
Field bindweed	4	1.8	50.0	0.3	7.0	7.0	7.0	3.6
Kochia	7	1.1	15.0	0.1	0.8	0.2	1.4	3.6
Wild rose	7	0.4	5.0	<0.1	0.2	0.2	0.2	2.8
Common cocklebur	4	0.4	10.0	<0.1	0.6	0.6	0.6	1.6
Dock	4	0.2	5.0	<0.1	0.2	0.2	0.2	1.4
Weed free	14	4.8	33.7	—	—	—	—	—

Table 98. Nelson County weed infestations based on 30 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	88.3	88.3	56.1	56.1	1.8	396.0	252.6
Wild oats	77	33.0	43.0	3.0	3.9	0.2	12.0	65.6
Wild buckwheat	73	28.0	38.2	2.6	3.6	0.2	16.0	58.5
Redroot pigweed	73	22.8	31.1	1.7	2.3	0.2	6.8	51.2
Kochia	37	11.7	31.8	2.4	6.6	0.2	58.0	29.5
Wild mustard	43	13.0	30.0	0.8	1.8	0.2	6.6	29.2
Russian thistle	37	10.8	29.5	1.5	4.0	0.2	25.0	26.5
Nightflowering catchfly	20	10.3	51.7	1.6	7.8	0.2	18.6	20.6

Table 98 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Prostrate pigweed	20	4.2	20.8	0.7	3.3	0.8	8.0	12.4
Perennial sowthistle	17	3.3	20.0	0.4	2.2	0.2	4.6	9.7
Common lambsquarters	20	2.5	12.5	0.2	0.9	0.2	2.6	9.6
Volunteer sunflower	7	3.3	50.0	0.5	8.1	8.0	8.2	6.8
Wild rose	13	0.8	6.3	<0.1	0.3	0.2	0.6	5.4
Field pennycress	3	3.3	100.0	0.3	9.4	9.4	9.4	5.2
Yellow foxtail	7	0.3	5.0	<0.1	0.2	0.2	0.2	2.6
Dwarf mallow	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.5
Weed free	27	4.8	18.1	—	—	—	—	—

Table 99. Oliver County weed infestations based on 10 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild buckwheat	90	44.0	48.9	4.7	5.3	0.2	17.4	85.1
Redroot pigweed	60	15.5	25.8	8.5	14.1	0.2	81.4	55.3
Russian thistle	70	23.5	33.6	1.8	2.5	0.8	5.8	51.0
Common lambsquarters	60	22.5	37.5	2.3	3.8	0.4	9.8	47.9
Field bindweed	50	20.5	41.0	3.4	6.7	3.6	8.4	45.0
Wild mustard	30	7.0	23.3	0.5	1.8	0.6	4.2	18.3
Kochia	20	3.5	17.5	0.4	1.8	0.2	3.4	11.0
Yellow foxtail	20	3.5	17.5	0.1	0.7	0.6	0.8	10.5
Wild oats	20	1.5	7.5	0.1	0.3	0.2	0.4	8.3
Quackgrass	10	1.0	10.0	0.9	8.6	8.6	8.6	6.3
Ragweed	10	2.5	25.0	0.1	1.2	1.2	1.2	6.1
Common cocklebur	10	2.0	20.0	0.1	1.2	1.2	1.2	5.6
Wild licorice	10	2.0	20.0	0.1	1.0	1.0	1.0	5.6
Common milkweed	10	1.0	10.0	0.1	1.2	1.2	1.2	4.6
Wild rose	10	1.0	10.0	0.1	0.6	0.6	0.6	4.5
Prickly lettuce	10	1.0	10.0	<0.1	0.4	0.4	0.4	4.4
Perennial sowthistle	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Large crabgrass	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Weed free	10	0.5	5.0	—	—	—	—	—

Table 100. Pembina County weed infestations based on 38 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Wild oats	76	48.0	62.9	5.2	6.8	0.2	33.2	85.6
Wild buckwheat	84	42.8	50.8	4.1	4.8	0.2	31.6	80.4
Yellow foxtail	63	30.9	49.0	4.1	6.4	0.2	40.0	61.4
Redroot pigweed	50	30.5	61.1	2.9	5.7	0.2	22.0	53.8
Wild mustard	26	9.3	35.5	0.6	2.2	0.2	8.2	19.4
Nightflowering catchfly	18	8.3	45.0	1.0	5.4	1.4	24.2	16.8
Canada thistle	21	3.8	18.1	0.3	1.4	0.6	2.8	11.5
Common lambsquarters	16	3.8	24.2	0.2	1.4	0.2	5.4	9.6
Quackgrass	8	3.4	43.3	0.5	6.6	2.8	12.8	7.3
Russian thistle	8	1.3	16.7	0.1	1.0	0.2	2.2	4.1
Austrian fieldcress	5	2.0	37.5	0.2	3.4	2.6	4.2	4.1
Prostrate pigweed	5	1.7	32.5	0.1	1.7	1.6	1.8	3.7
Kochia	8	0.9	11.7	<0.1	0.5	0.2	1.2	3.7

Table 100 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Volunteer sunflower	3	1.3	50.0	0.1	4.2	4.2	4.2	2.5
Waterpod	3	0.7	25.0	<0.1	1.4	1.4	1.4	1.6
Roundleaf mallow	3	0.1	5.0	<0.1	0.2	0.2	0.2	1.0
Weed free	11	0.9	8.7	—	—	—	—	—

Table 101. Pierce County weed infestations based on 26 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	94.4	94.4	69.3	69.3	2.2	249.0	289.3
Wild buckwheat	88	54.0	61.1	6.1	6.9	0.2	19.6	97.8
Wild oats	58	31.2	54.0	5.4	9.4	0.2	24.8	63.0
Russian thistle	62	26.2	42.5	5.0	8.1	0.4	30.6	58.3
Redroot pigweed	73	22.1	30.3	3.7	5.1	0.4	52.0	55.2
Common lambsquarters	42	20.6	48.6	2.9	6.9	0.2	21.2	41.4
Yellow foxtail	27	11.0	40.7	3.6	13.5	0.2	52.4	28.4
Field bindweed	27	12.3	45.7	2.2	8.3	0.4	15.6	26.5
Wild mustard	27	11.0	40.7	1.3	4.9	0.2	17.0	23.0
Canada thistle	31	4.4	14.4	0.7	2.3	0.6	5.6	16.3
Kochia	27	4.0	15.0	0.4	1.5	0.2	7.2	13.9
Quackgrass	15	5.4	35.0	1.0	6.6	1.8	9.8	12.9
Wild rose	23	3.8	16.7	0.3	1.5	0.2	2.2	12.3
Nightflowering catchfly	15	5.6	36.2	0.6	3.7	0.2	8.2	12.0
Prostrate spurge	23	2.7	11.7	0.1	0.5	0.2	1.0	10.7
Perennial sowthistle	12	3.5	30.0	0.8	6.6	4.2	10.6	9.1
Skeleton weed	15	1.0	6.3	<0.1	0.3	0.2	0.4	6.2
Volunteer sunflower	12	1.7	15.0	0.1	0.9	0.6	1.2	5.8
Common cocklebur	8	1.5	20.0	0.1	1.7	1.4	2.0	4.4
Flixweed	4	0.8	20.0	<0.1	1.2	1.2	1.2	2.2
Field pennycress	4	0.6	15.0	<0.1	1.0	1.0	1.0	1.9
Common purslane	4	0.2	5.0	<0.1	0.8	0.8	0.8	1.5
Prostrate pigweed	4	0.2	5.0	<0.1	0.2	0.2	0.2	1.5
Wild barley	4	0.2	5.0	<0.1	0.4	0.4	0.4	1.5
Dwarf mallow	4	0.2	5.0	<0.1	0.2	0.2	0.2	1.5
Weed free	19	3.5	18.0	—	—	—	—	—

Table 102. Ramsey County weed infestations based on 40 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	83.9	86.0	80.0	82.1	0.2	275.4	303.1
Redroot pigweed	88	35.9	41.0	4.4	5.1	0.2	25.2	75.4
Wild mustard	95	23.2	24.5	2.1	2.2	0.2	22.8	59.7
Wild buckwheat	75	16.6	22.2	1.2	1.6	0.2	8.6	44.4
Kochia	58	8.4	14.6	0.6	1.1	0.2	5.0	29.0
Wild oats	40	9.4	23.4	0.8	2.1	0.2	12.2	24.7
Common lambsquarters	43	6.3	14.7	0.4	0.9	0.2	3.6	21.3
Prostrate spurge	28	8.2	30.0	0.8	2.9	0.2	13.8	19.3
Prostrate pigweed	25	5.2	21.0	1.3	5.1	0.2	24.8	16.6
Yellow foxtail	10	5.2	52.5	3.1	30.8	0.4	61.4	15.8
Russian thistle	28	4.4	15.9	0.9	3.3	0.2	20.8	15.7
Canada thistle	33	3.5	10.8	0.3	1.0	0.2	2.0	15.1
Perennial sowthistle	15	1.9	12.5	0.1	0.6	0.2	1.6	7.1
Wild rose	15	1.4	9.2	0.1	0.8	0.2	2.6	6.7
Common cocklebur	13	1.7	14.0	0.2	1.2	0.2	3.2	6.3

Table 102 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Dwarf mallow	15	1.1	7.5	0.1	0.6	0.2	2.2	6.3
Quackgrass	5	2.4	47.5	0.3	5.3	0.6	10.0	4.7
Field bindweed	5	0.9	17.5	0.1	1.1	0.6	1.6	2.7
Marshelder	5	0.7	15.0	<0.1	0.6	0.2	1.0	2.5
Common milkweed	3	0.4	15.0	0.1	2.4	2.4	2.4	1.3
Common purslane	3	0.2	10.0	<0.1	0.4	0.4	0.4	1.1
Leafy spurge	3	0.1	5.0	<0.1	0.4	0.4	0.4	1.0
Weed free	30	4.0	13.3	—	—	—	—	—

Table 103. Ransom County weed infestations based on 18 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	80.0	80.0	37.6	37.6	3.6	194.4	201.1
Yellow foxtail	78	29.2	37.5	5.8	7.5	0.8	36.6	68.7
Wild buckwheat	72	21.1	29.2	1.7	2.3	0.4	11.8	49.0
Wild mustard	67	18.3	27.5	1.2	1.8	0.2	9.4	43.3
Common lambsquarters	78	10.0	12.9	0.5	0.6	0.2	1.6	37.0
Redroot pigweed	67	9.4	14.2	0.6	0.8	0.2	3.2	33.0
Field bindweed	44	15.0	33.7	1.3	2.9	0.4	6.0	32.8
Canada thistle	56	8.1	14.5	0.8	1.4	0.2	5.6	28.4
Russian thistle	33	6.7	20.0	0.4	1.1	0.2	3.4	18.7
Ragweed	39	4.7	12.1	0.2	0.6	0.2	1.2	18.2
Wild rose	33	4.7	14.2	0.3	0.8	0.2	2.6	16.5
Common purslane	33	4.2	12.5	0.2	0.6	0.2	2.0	15.8
Quackgrass	22	4.7	21.2	0.4	1.7	0.4	3.0	13.0
Volunteer millet	17	4.4	26.7	0.8	4.8	0.4	9.6	11.9
Prostrate pigweed	28	1.9	7.0	0.1	0.3	0.2	0.6	11.4
Wild oats	17	4.7	28.3	0.3	1.9	0.2	5.0	11.0
Leafy spurge	17	4.7	28.3	0.3	1.8	0.6	2.8	11.0
Perennial sowthistle	22	1.7	7.5	0.1	0.3	0.2	0.6	9.3
Volunteer alfalfa	6	2.8	50.0	0.2	3.0	3.0	3.0	5.0
Common milkweed	11	0.8	7.5	0.1	0.9	0.4	1.4	4.8
Kochia	11	0.6	5.0	<0.1	0.2	0.2	0.2	4.3
Greenflower pepperweed	11	0.6	5.0	<0.1	0.2	0.2	0.2	4.3
Volunteer corn	6	1.4	25.0	0.1	2.0	2.0	2.0	3.5
Silver cinquefoil	6	1.4	25.0	0.1	1.4	1.4	1.4	3.4
Knotweeds	6	1.4	25.0	0.1	1.4	1.4	1.4	3.4
Prickly lettuce	6	0.6	10.0	<0.1	0.4	0.4	0.4	2.5
Nightflowering catchfly	6	0.6	10.0	<0.1	0.4	0.4	0.4	2.5
Dwarf mallow	6	0.3	5.0	<0.1	0.2	0.2	0.2	2.2
Weed free	44	6.7	15.0	—	—	—	—	—

Table 104. Renville County weed infestations based on 25 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	90.4	90.4	134.5	134.5	6.4	389.2	437.5
Wild buckwheat	96	29.6	30.8	2.1	2.2	0.2	9.2	66.6
Wild oats	64	20.6	32.2	3.1	4.8	0.4	23.8	49.1
Redroot pigweed	76	14.6	19.2	1.2	1.6	0.2	11.6	42.8
Yellow foxtail	32	12.8	40.0	7.5	23.4	0.8	95.0	41.0
Common lambsquarters	60	7.6	12.7	0.5	0.8	0.2	3.0	28.7
Common cocklebur	40	5.4	13.5	0.4	0.9	0.2	2.8	19.6
Quackgrass	28	5.8	20.7	1.1	4.1	0.6	9.2	17.8

Table 104 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Perennial sowthistle	32	5.6	17.5	0.5	1.5	0.2	4.0	17.4
Wild mustard	32	5.2	16.2	0.4	1.3	0.2	6.4	16.8
Barnyardgrass	32	4.0	12.5	0.3	1.0	0.2	2.8	15.4
Kochia	36	2.2	6.1	0.2	0.4	0.2	1.2	14.6
Canada thistle	24	4.4	18.3	0.4	1.6	0.4	4.2	13.3
Field bindweed	20	3.2	16.0	0.6	3.1	0.6	11.6	11.3
Field pennycress	20	3.4	17.0	0.3	1.7	0.2	4.4	10.9
Prostrate pigweed	16	1.4	8.7	0.1	0.3	0.2	0.6	6.9
False chamomile	12	1.4	11.7	0.1	0.7	0.2	1.4	5.6
Russian thistle	8	0.8	10.0	0.1	1.2	0.2	2.2	3.7
Wild rose	8	0.6	7.5	0.1	0.7	0.6	0.8	3.4
Prostrate spurge	8	0.4	5.0	< 0.1	0.2	0.2	0.2	3.1
Clover	4	0.6	15.0	< 0.1	0.8	0.8	0.8	2.0
Common dandelion	4	0.4	10.0	< 0.1	1.0	1.0	1.0	1.8
Knotweeds	4	0.2	5.0	< 0.1	0.2	0.2	0.2	1.6
Greenflower pepperweed	4	0.2	5.0	< 0.1	0.2	0.2	0.2	1.6
Weed free	12	3.4	28.3	—	—	—	—	—

Table 105. Richland County weed infestations based on 39 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Yellow foxtail	87	47.9	55.0	17.0	19.5	0.2	138.0	116.7
Green foxtail	85	51.3	60.6	12.2	14.4	0.2	78.8	107.9
Common lambsquarters	74	19.9	26.7	2.7	3.6	0.2	21.0	50.8
Wild buckwheat	44	17.2	39.4	1.9	4.3	0.2	20.6	36.1
Wild mustard	54	14.0	26.0	1.6	2.9	0.2	28.6	35.6
Redroot pigweed	51	7.9	15.5	1.6	3.1	0.2	31.4	28.7
Wild oats	31	7.7	25.0	0.8	2.7	0.2	11.8	19.9
Ragweed	31	4.6	15.0	0.4	1.4	0.2	9.0	15.9
Common milkweed	26	3.8	15.0	0.4	1.7	0.2	5.8	13.4
Volunteer sunflower	26	3.6	14.0	0.4	1.5	0.2	5.6	13.0
Quackgrass	18	4.7	26.4	0.6	3.2	0.6	9.6	12.1
Smartweed	21	2.7	13.1	0.2	1.0	0.2	2.0	10.0
Canada thistle	21	2.1	10.0	0.2	0.8	0.2	2.0	9.3
Russian thistle	15	2.9	19.2	0.3	2.1	0.2	6.8	8.8
Kochia	13	2.2	17.0	0.3	2.5	0.4	5.8	7.2
Perennial sowthistle	13	1.0	8.0	0.2	1.7	0.2	3.8	5.8
Barnyardgrass	10	1.4	13.7	0.3	3.0	0.2	8.6	5.6
Prostrate spurge	10	1.0	10.0	0.1	0.5	0.2	1.4	4.6
Volunteer soybean	10	0.8	7.5	< 0.1	0.4	0.2	0.6	4.3
Field bindweed	5	1.0	20.0	0.1	2.6	0.4	4.8	3.0
Common purslane	8	0.4	5.0	< 0.1	0.3	0.2	0.4	3.0
Nightflowering catchfly	3	0.8	30.0	0.1	2.6	2.6	2.6	1.8
Hedge bindweed	3	0.6	25.0	0.1	2.8	2.8	2.8	1.7
Prostrate pigweed	3	0.8	30.0	< 0.1	1.4	1.4	1.4	1.7
Volunteer corn	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.0
Weed free	41	9.0	21.9	—	—	—	—	—

Table 106. Rolette County weed infestations based on 20 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	88.0	88.0	68.8	68.8	5.4	340.4	281.8
Wild oats	90	50.5	56.1	10.2	11.3	0.6	39.6	104.2
Wild buckwheat	85	38.2	45.0	3.7	4.3	0.2	11.8	75.1

Table 106 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Nightflowering catchfly	40	17.5	43.8	1.5	3.8	1.0	6.4	34.4
Common lambsquarters	40	13.5	33.7	2.2	5.5	0.2	28.4	32.0
Wild mustard	35	12.0	34.3	2.0	5.8	0.2	31.4	28.4
Canada thistle	40	9.7	24.4	1.7	4.1	0.2	22.4	27.0
Redroot pigweed	40	6.3	15.6	0.9	2.3	0.2	14.8	21.8
Perennial sowthistle	25	8.0	32.0	1.0	4.0	0.2	10.2	18.6
Quackgrass	10	8.5	85.0	2.3	22.5	15.8	29.2	17.1
Russian thistle	25	5.2	21.0	0.4	1.5	0.4	2.8	14.4
Yellow foxtail	10	6.5	65.0	1.9	18.8	11.0	26.6	14.2
Kochia	20	3.0	15.0	0.2	1.0	0.2	2.0	10.2
Field pennycress	15	3.2	21.7	0.2	1.1	0.2	1.8	8.6
Common dandelion	5	4.5	90.0	1.0	19.6	19.6	19.6	8.5
Barnyardgrass	10	2.7	27.5	0.3	2.7	0.4	5.0	6.7
Prostrate spurge	15	0.7	5.0	<0.1	0.2	0.2	0.2	5.8
Wild rose	10	1.7	17.5	0.1	1.3	0.6	2.0	5.4
Field bindweed	5	1.5	80.0	0.1	2.8	2.8	2.8	3.5
Sandbur	5	1.5	30.0	0.1	1.8	1.8	1.8	3.4
Common milkweed	5	1.0	20.0	0.2	3.6	3.6	3.6	3.1
Smartweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Dwarf mallow	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.9
Weed free	30	6.3	20.8	—	—	—	—	—

Table 107. Sargent County weed infestations based on 19 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	82.9	82.9	41.5	41.5	0.6	92.2	213.1
Yellow foxtail	68	28.9	42.3	8.1	11.8	0.6	50.4	70.7
Volunteer millet	21	13.2	62.5	10.8	51.2	0.8	123.8	45.3
Wild buckwheat	74	12.1	16.4	0.6	0.8	0.2	2.8	38.1
Wild mustard	53	12.4	23.5	0.8	1.6	0.2	7.4	31.9
Canada thistle	58	9.5	16.4	0.7	1.3	0.2	3.8	30.5
Redroot pigweed	53	8.9	17.0	0.5	0.9	0.2	2.4	27.6
Kochia	32	8.2	25.8	1.3	4.0	0.2	21.6	21.6
Common lambsquarters	47	5.0	10.6	0.2	0.5	0.2	0.8	21.3
Volunteer sunflower	26	10.5	40.0	0.6	2.4	1.0	4.6	20.7
Wild oats	26	8.9	34.0	0.7	2.8	0.2	6.6	19.4
Field bindweed	32	5.5	17.5	0.6	2.0	0.2	8.8	17.5
Russian thistle	16	7.6	48.3	1.3	8.5	0.4	13.8	16.0
Prostrate spurge	21	3.2	15.0	0.2	0.9	0.2	2.6	10.6
Ragweed	26	1.6	6.0	0.1	0.2	0.2	0.4	10.5
Quackgrass	16	3.7	23.3	0.3	2.1	0.6	4.4	9.7
Wild rose	21	2.1	10.0	0.1	0.5	0.2	0.6	9.4
Black medic	5	4.5	85.0	1.3	25.2	25.2	25.2	9.3
Common milkweed	16	3.4	21.7	0.2	1.1	1.0	1.2	9.1
Perennial sowthistle	16	2.4	15.0	0.2	1.1	0.4	2.2	8.0
Volunteer corn	5	2.1	40.0	0.1	2.6	2.6	2.6	4.2
Common purslane	11	0.5	5.0	<0.1	0.2	0.2	0.2	4.1
Horsetail	5	1.6	30.0	0.1	2.6	2.6	2.6	3.7
Smartweed	5	1.6	30.0	0.1	1.8	1.8	1.8	3.6
Volunteer alfalfa	5	1.3	25.0	0.1	1.4	1.4	1.4	3.2
Leafy spurge	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.4
Common dandelion	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Nightflowering catchfly	5	0.3	5.0	<0.1	0.2	0.2	0.2	2.0
Weed free	37	6.8	18.6	—	—	—	—	—

Table 108. Sheridan County weed infestations based on 21 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	91.9	91.9	24.0	24.0	7.0	39.8	181.2
Wild oats	62	26.7	43.1	1.5	2.5	0.4	7.0	50.9
Redroot pigweed	76	20.5	26.9	1.5	1.9	0.4	14.6	49.3
Wild mustard	67	20.0	30.0	0.9	1.3	0.4	4.2	44.3
Field bindweed	38	14.0	36.9	0.7	1.9	0.2	3.8	28.4
Wild buckwheat	43	12.6	29.4	0.6	1.4	0.2	3.2	28.3
Russian thistle	14	1.9	13.3	0.1	0.7	0.2	1.2	6.9
Common lambsquarters	14	1.9	13.3	0.1	0.5	0.2	0.8	6.8
Volunteer sunflower	14	1.7	11.7	0.1	0.5	0.2	0.6	6.6
Kochia	14	1.0	6.7	<0.1	0.3	0.2	0.4	5.8
Field pennycress	10	1.4	15.0	0.1	0.6	0.6	0.6	4.7
Canada thistle	5	1.9	40.0	0.4	8.2	8.2	8.2	4.4
Prostrate spurge	5	1.7	35.0	0.2	4.4	4.4	4.4	3.7
Flixweed	5	1.4	30.0	<0.1	1.6	1.6	1.6	3.2
Perennial sowthistle	5	1.2	25.0	<0.1	1.0	1.0	1.0	2.9
Greenflower pepperweed	5	0.7	15.0	<0.1	0.8	0.8	0.8	2.4
Common purslane	5	0.5	10.0	<0.1	0.6	0.6	0.6	2.1
Shepherdspurge	5	0.5	10.0	<0.1	0.4	0.4	0.4	2.1
Prostrate pigweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	29	4.3	15.0	—	—	—	—	—

Table 109. Sioux County weed infestations based on 10 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Field bindweed	100	48.0	48.0	3.5	3.5	0.6	9.8	89.6
Green foxtail	90	44.0	48.9	4.3	4.8	0.4	13.8	84.1
Wild oats	90	39.5	43.9	3.0	3.3	0.6	11.6	76.4
Kochia	90	16.5	18.3	0.9	1.0	0.2	5.4	48.6
Russian thistle	70	18.0	25.7	1.1	1.5	0.4	5.0	43.8
Common lambsquarters	60	9.5	15.8	0.5	0.8	0.2	1.4	30.6
Wild mustard	50	10.0	20.0	0.6	1.2	0.2	2.6	28.1
Wild buckwheat	50	8.5	17.0	0.5	0.9	0.4	1.8	26.2
Yellow foxtail	40	6.5	16.2	0.6	1.4	0.2	3.2	21.1
Redroot pigweed	40	4.5	11.2	0.2	0.6	0.4	1.0	18.4
Prostrate pigweed	30	3.0	10.0	0.1	0.5	0.4	0.6	13.3
Smartweed	10	2.0	20.0	0.1	0.8	0.8	0.8	5.5
Marshelder	10	2.0	20.0	0.1	0.8	0.8	0.8	5.5
Flixweed	10	2.0	20.0	0.1	0.8	0.8	0.8	5.5
Ragweed	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Common purslane	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Prickly lettuce	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Volunteer sunflower	10	0.5	5.0	<0.1	0.2	0.2	0.2	3.9
Prostrate spurge	10	0.5	5.0	<0.1	0.4	0.4	0.4	3.9

Table 110. Slope County weed infestations based on 12 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	75	54.2	72.2	44.1	58.8	3.8	245.2	182.0
Wild buckwheat	92	45.4	49.5	5.8	6.3	0.2	26.8	89.4
Wild oats	75	29.6	39.4	7.6	10.2	0.2	29.0	72.4
Redroot pigweed	83	30.0	36.0	4.1	4.9	0.2	19.6	67.3
Russian thistle	50	16.2	32.5	1.8	3.6	0.6	10.6	37.1
Common lambsquarters	50	12.1	24.2	0.9	1.8	0.2	4.8	30.8

Table 110 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Prostrate pigweed	50	10.8	21.7	1.3	2.6	0.2	11.2	30.5
Field bindweed	33	12.9	38.7	1.5	4.6	0.8	8.6	27.6
Prostrate spurge	25	10.0	40.0	1.7	6.7	0.6	18.8	22.3
Kochia	25	9.6	38.3	1.5	6.2	0.2	16.4	21.5
Field pennycress	33	5.0	15.0	0.6	1.8	0.4	6.2	17.5
Flixweed	33	5.0	15.0	0.4	1.3	0.2	4.0	17.2
Downy brome	17	5.4	32.5	0.6	3.5	0.6	6.4	12.3
Wild rose	17	1.7	10.0	0.3	1.6	0.4	2.8	7.8
Yellow foxtail	17	1.7	10.0	0.1	0.5	0.4	0.6	7.4
Buffalo bur	8	3.3	40.0	0.3	3.4	3.4	3.4	6.8
Volunteer sunflower	17	0.8	5.0	<0.1	0.2	0.2	0.2	6.5
Large crabgrass	8	2.5	30.0	0.1	1.4	1.4	1.4	5.5
Knotweeds	8	2.1	25.0	0.2	2.4	2.4	2.4	5.3
Common purslane	8	1.2	15.0	0.1	1.4	1.4	1.4	4.3
Waterpod	8	1.2	15.0	0.1	1.4	1.4	1.4	4.3
Wild mustard	8	1.2	15.0	0.1	1.0	1.0	1.0	4.2
Wild geranium	8	1.2	15.0	<0.1	0.6	0.6	0.6	4.1
Common dandelion	8	0.8	10.0	<0.1	0.4	0.4	0.4	3.7
Wild barley	8	0.4	5.0	<0.1	0.4	0.4	0.4	3.3
Western salsify	8	0.4	5.0	<0.1	0.2	0.2	0.2	3.2
Prickly lettuce	8	0.4	5.0	<0.1	0.2	0.2	0.2	3.2
False chamomile	8	0.4	5.0	<0.1	0.2	0.2	0.2	3.2
Volunteer alfalfa	8	0.4	5.0	<0.1	0.2	0.2	0.2	3.2
Weed free	17	1.7	10.0	—	—	—	—	—

Table 111. Stark County weed infestations based on 191 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	69	44.7	65.2	50.8	74.0	0.2	396.0	186.0
Redroot pigweed	72	24.6	34.1	7.4	10.2	0.2	273.2	65.9
Wild buckwheat	64	26.7	41.8	6.1	9.6	0.2	134.2	62.3
Wild oats	61	22.5	37.1	6.6	10.8	0.2	167.6	58.1
Russian thistle	45	12.0	26.9	4.5	10.1	0.2	226.4	37.3
Field pennycress	33	7.8	23.7	2.1	6.4	0.2	146.6	23.8
Yellow foxtail	18	7.5	40.9	4.1	22.3	0.4	316.4	23.1
Wild mustard	42	7.1	17.1	0.6	1.5	0.2	16.2	22.5
Common lambsquarters	39	6.6	16.9	0.7	1.7	0.2	18.0	21.3
Field bindweed	28	6.7	23.7	1.0	3.4	0.2	24.8	18.4
Kochia	29	4.5	15.2	0.5	1.8	0.2	24.4	15.5
Prostrate pigweed	14	3.9	27.6	0.9	6.3	0.2	90.0	10.7
Volunteer sunflower	18	3.0	16.3	0.3	1.7	0.2	18.8	9.8
Flixweed	12	2.2	18.9	0.2	1.6	0.2	9.4	6.4
Wild vetch	10	1.1	10.7	0.1	1.0	0.2	6.2	4.9
Common dandelion	9	1.2	12.2	0.1	1.0	0.2	10.0	4.5
Greenflower pepperweed	7	1.6	22.1	0.2	2.3	0.2	16.6	4.5
Wild rose	10	0.7	7.4	0.1	0.8	0.2	2.6	4.2
Prickly lettuce	7	0.8	11.9	0.2	2.2	0.2	23.6	3.4
Volunteer alfalfa	5	1.0	19.5	0.1	1.7	0.2	6.6	3.0
Buffalo bur	4	1.0	23.1	0.2	5.3	0.2	34.8	2.9
Ragweed	6	0.5	8.2	<0.1	0.5	0.2	1.8	2.5
Leafy spurge	2	0.8	40.0	0.2	9.3	1.0	32.2	2.0
Skeleton weed	4	0.4	10.6	<0.1	0.9	0.2	2.6	1.9
Monolepis	3	0.7	21.7	0.1	2.2	0.2	7.8	1.9
Quackgrass	3	0.7	26.0	0.1	5.4	0.6	19.8	1.9
Perennial sowthistle	3	0.5	21.0	0.2	7.2	0.2	32.6	1.9
Common purslane	4	0.2	5.7	<0.1	0.3	0.2	0.8	1.5
Prostrate spurge	2	0.5	26.2	0.1	4.1	0.2	15.0	1.5
Poverty weed	2	0.5	33.3	0.1	8.3	3.2	16.6	1.4

Table 111 (continued)

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Nuttalls violet	1	0.5	52.5	0.2	17.3	0.2	34.4	1.3
Witchgrass	3	0.4	14.0	<0.1	1.2	0.2	2.2	1.3
Scurf pea	3	0.3	10.0	<0.1	0.6	0.2	1.4	1.2
Clover	3	0.3	10.0	<0.1	1.1	0.2	4.2	1.2
False flax	2	0.5	30.0	<0.1	2.3	1.8	2.8	1.1
Dwarf mallow	3	0.2	8.0	<0.1	0.5	0.2	0.8	1.1
Bromegrass	2	0.2	7.5	<0.1	0.5	0.4	0.6	0.9
Knotweeds	2	0.2	10.0	<0.1	0.4	0.2	1.0	0.9
Smooth blue aster	1	0.2	22.5	0.1	7.1	3.0	11.2	0.8
Wild parsley	2	0.1	6.3	<0.1	0.3	0.2	0.6	0.8
Common cocklebur	2	0.1	6.7	<0.1	0.3	0.2	0.4	0.6
Green sage	1	0.2	20.0	<0.1	2.9	0.2	5.6	0.6
Fairy candelabra	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.4
Common milkweed	1	0.1	7.5	<0.1	0.4	0.2	0.6	0.4
Canada thistle	1	0.1	5.0	<0.1	0.2	0.2	0.2	0.4
Gumweed	1	0.1	20.0	<0.1	1.4	1.4	1.4	0.3
Tall blazing star	1	0.1	15.0	<0.1	1.0	1.0	1.0	0.3
Marshelder	1	0.1	20.0	<0.1	1.0	1.0	1.0	0.3
Volunteer wheat	1	0.1	15.0	<0.1	0.8	0.8	0.8	0.3
Flodmans thistle	1	0.1	10.0	<0.1	0.6	0.6	0.6	0.2
Blue lettuce	<1	0.1	5.0	<0.1	0.2	0.2	0.2	0.2
Broadleaf plantain	<1	0.1	5.0	<0.1	0.8	0.8	0.8	0.2
Horsetail	<1	0.1	5.0	<0.1	0.2	0.2	0.2	0.2
Shepherdspurse	1	0.1	10.0	<0.1	0.4	0.4	0.4	0.2
Dock	<1	0.1	5.0	<0.1	0.2	0.2	0.2	0.2
Weed free	50	12.3	24.8	—	—	—	—	—

Table 112. Steele County weed infestations based on 21 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	71.2	71.2	10.3	10.3	1.8	35.2	128.6
Wild buckwheat	90	22.9	25.3	1.2	1.3	0.6	5.6	55.9
Wild mustard	67	23.6	35.4	1.2	1.9	0.2	3.6	48.7
Redroot pigweed	90	13.8	15.3	0.7	0.8	0.2	2.4	45.6
Yellow foxtail	48	19.0	40.0	1.6	3.4	0.6	12.4	38.7
Wild oats	52	17.1	32.7	1.7	3.3	0.2	12.4	38.6
Prostrate pigweed	71	12.4	17.3	0.7	1.0	0.2	5.8	37.9
Canada thistle	48	6.2	13.0	0.5	1.0	0.2	3.0	23.2
Ragweed	43	6.7	15.6	0.4	0.9	0.4	1.6	21.8
Common lambsquarters	43	5.5	12.8	0.3	0.6	0.2	2.0	20.4
Russian thistle	33	6.0	17.9	0.4	1.1	0.2	4.4	17.9
Shepherdspurse	38	2.6	6.9	0.1	0.3	0.2	0.4	15.6
Wild rose	29	3.1	10.8	0.2	0.7	0.2	1.4	13.1
Perennial sowthistle	14	3.1	21.7	0.3	1.9	0.2	5.0	8.5
Kochia	14	1.2	8.3	0.1	0.5	0.4	0.6	6.1
Field bindweed	10	1.7	17.5	0.1	1.5	0.4	2.6	5.2
Volunteer sunflower	5	1.0	20.0	0.1	1.2	1.2	1.2	2.7
Quackgrass	5	0.7	15.0	0.1	1.4	1.4	1.4	2.5
Common dandelion	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Common milkweed	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Dwarf mallow	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Prostrate spurge	5	0.2	5.0	<0.1	0.2	0.2	0.2	1.8
Weed free	76	10.0	13.1	—	—	—	—	—

Table 113. Stutsman County weed infestations based on 54 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	89.4	91.0	169.3	172.5	0.8	396.0	517.1
Redroot pigweed	80	30.5	38.3	9.5	11.9	0.2	66.2	79.1
Wild buckwheat	76	21.4	28.2	2.8	3.7	0.2	39.6	53.2
Wild mustard	61	17.7	28.9	5.5	9.0	0.2	186.4	50.8
Yellow foxtail	54	15.0	27.9	4.5	8.5	0.2	46.8	43.5
Common lambsquarters	70	16.0	22.8	1.7	2.4	0.2	16.8	43.4
Russian thistle	37	11.1	30.0	1.8	4.9	0.2	41.6	27.7
Kochia	39	7.6	19.5	1.7	4.4	0.2	58.6	24.6
Wild oats	43	8.4	19.8	0.8	1.8	0.2	7.2	24.4
Prostrate pigweed	35	8.0	22.6	1.7	4.8	0.2	31.6	23.6
Field pennycress	30	5.0	16.9	0.9	2.9	0.2	27.6	16.9
Common purslane	15	3.7	25.0	1.8	11.8	0.4	69.6	12.7
Canada thistle	22	3.4	15.4	0.7	3.1	0.2	10.8	12.4
Field bindweed	17	3.5	21.1	0.7	4.2	0.2	16.4	10.7
Prostrate spurge	17	2.8	16.7	0.3	1.9	0.2	7.6	9.1
Yellow woodsorrel	13	2.6	20.0	0.3	1.9	0.2	7.0	7.5
Wild rose	11	1.4	12.5	0.1	1.0	0.2	3.6	5.4
Volunteer sunflower	9	0.9	10.0	<0.1	0.4	0.2	1.2	4.1
Flixweed	7	0.6	8.7	0.1	1.3	0.4	3.8	3.3
Dwarf mallow	7	0.6	8.7	<0.1	0.6	0.2	2.0	3.2
Common cocklebur	6	0.6	11.7	0.1	1.0	0.4	1.8	2.6
Perennial sowthistle	6	0.6	10.0	<0.1	0.7	0.4	0.8	2.5
Greenflower pepperweed	4	0.4	10.0	<0.1	0.6	0.2	1.0	1.7
Quackgrass	4	0.2	5.0	<0.1	1.0	1.0	1.0	1.5
Barnyardgrass	2	0.5	25.0	0.1	4.0	4.0	4.0	1.3
Volunteer corn	2	0.3	15.0	<0.1	0.8	0.8	0.8	0.9
Ragweed	2	0.2	10.0	<0.1	2.4	2.4	2.4	0.9
Smartweed	2	0.1	5.0	<0.1	2.6	2.6	2.6	0.8
Volunteer flax	2	0.1	5.0	0.1	3.0	3.0	3.0	0.8
Common dandelion	2	0.1	5.0	<0.1	0.2	0.2	0.2	0.7
Weed free	22	6.4	28.7	—	—	—	—	—

Table 114. Towner County weed infestations based on 32 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	78.6	78.6	40.6	40.6	1.6	169.6	206.7
Wild buckwheat	72	27.5	38.3	2.3	3.2	0.2	11.2	56.8
Wild oats	72	25.2	35.0	2.8	3.9	0.2	16.6	55.6
Redroot pigweed	59	18.0	30.3	1.4	2.4	0.2	5.8	41.1
Wild mustard	66	15.2	23.1	1.0	1.5	0.2	5.6	39.4
Canada thistle	44	10.5	23.9	1.0	2.4	0.2	12.8	27.5
Nightflowering catchfly	34	11.7	34.1	1.5	4.4	0.4	16.2	26.7
Common lambsquarters	38	7.7	20.4	0.7	1.9	0.2	13.0	21.8
Russian thistle	31	7.5	24.0	0.7	2.1	0.2	5.0	19.5
Prostrate pigweed	28	5.2	18.3	0.4	1.4	0.2	4.8	15.5
Kochia	28	4.1	14.4	0.2	0.8	0.2	2.0	14.0
Field pennycress	19	2.5	13.3	0.1	0.6	0.4	1.0	9.0
Perennial sowthistle	9	2.5	26.7	0.3	3.1	0.2	7.0	6.3
Wild rose	13	0.8	6.3	<0.1	0.3	0.2	0.4	5.0
Field bindweed	6	1.1	17.5	<0.1	0.7	0.6	0.8	3.3
Greenflower pepperweed	3	1.7	55.0	0.1	4.8	4.8	4.8	3.1
Common cocklebur	6	0.3	5.0	<0.1	0.3	0.2	0.4	2.4
Common purslane	3	0.3	10.0	<0.1	0.4	0.4	0.4	1.4
Marshelder	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Dwarf mallow	3	0.2	5.0	<0.1	0.2	0.2	0.2	1.2
Weed free	31	6.1	19.5	—	—	—	—	—

Table 115. Traill County weed infestations based on 31 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	97	55.3	57.2	17.9	18.5	0.4	60.6	129.3
Yellow foxtail	77	38.4	49.6	12.2	15.7	0.2	78.6	92.6
Wild oats	58	22.9	39.4	5.5	9.4	0.6	46.4	55.0
Wild buckwheat	61	16.0	26.1	1.9	3.1	0.2	28.8	40.9
Redroot pigweed	48	12.6	26.0	1.6	3.3	0.2	15.4	32.4
Prostrate spurge	52	11.3	21.9	1.0	1.9	0.2	7.2	30.8
Wild mustard	26	7.1	27.5	0.5	1.8	0.2	5.6	16.8
Common lambsquarters	23	2.9	12.9	0.2	1.0	0.2	2.6	11.0
Quackgrass	10	2.9	30.0	0.8	7.9	3.0	17.0	7.9
Canada thistle	13	1.9	15.0	0.3	2.0	0.2	7.2	6.8
Ragweed	10	0.6	6.7	< 0.1	0.5	0.2	0.8	4.0
Kochia	6	1.6	25.0	0.1	1.1	0.2	2.0	3.9
Greenflower pepperweed	3	1.6	50.0	0.2	6.6	6.6	6.6	3.2
Volunteer soybean	3	1.8	55.0	0.1	3.2	3.2	3.2	3.1
Perennial sowthistle	6	0.6	10.0	< 0.1	0.5	0.2	0.8	2.9
Volunteer sunflower	6	0.5	7.5	< 0.1	0.3	0.2	0.4	2.7
Common milkweed	6	0.3	5.0	< 0.1	0.2	0.2	0.2	2.5
Wild vetch	3	0.6	20.0	< 0.1	0.8	0.8	0.8	1.8
Barnyardgrass	3	0.3	10.0	< 0.1	1.4	1.4	1.4	1.5
Smartweed	3	0.3	10.0	< 0.1	0.4	0.4	0.4	1.4
Wild rose	3	0.3	10.0	< 0.1	0.4	0.4	0.4	1.4
Clover	3	0.3	10.0	< 0.1	0.6	0.6	0.6	1.4
Volunteer wheat	3	0.3	10.0	< 0.1	0.6	0.6	0.6	1.4
Field pennycress	3	0.2	5.0	< 0.1	0.2	0.2	0.2	1.3
Russian thistle	3	0.2	5.0	< 0.1	0.2	0.2	0.2	1.3
Weed free	52	18.9	36.6	—	—	—	—	—

Table 116. Walsh County weed infestations based on 43 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	98	96.4	98.7	81.6	83.5	3.2	358.6	319.3
Wild oats	84	54.1	64.6	8.4	10.0	0.4	59.4	101.6
Wild buckwheat	86	55.3	64.3	6.2	7.2	0.4	31.6	98.5
Redroot pigweed	77	39.5	51.5	5.2	6.7	0.2	35.2	77.1
Wild mustard	49	25.8	52.9	2.1	4.4	0.2	15.6	47.1
Nightflowering catchfly	28	14.1	50.4	2.0	7.1	0.8	31.6	28.0
Yellow foxtail	21	11.0	52.8	2.1	9.8	0.4	27.2	22.8
Canada thistle	23	10.0	43.0	1.3	5.6	0.2	23.0	20.8
Common lambsquarters	26	6.0	23.6	0.5	2.1	0.2	10.8	15.9
Kochia	14	4.9	35.0	0.3	2.0	0.2	6.8	10.2
Russian thistle	14	3.5	25.0	0.2	1.6	0.2	7.4	8.7
Large crabgrass	7	5.1	73.3	0.3	4.7	3.4	6.2	8.2
Volunteer sunflower	7	2.4	35.0	0.1	1.9	1.0	3.0	5.1
Field pennycress	7	1.5	21.7	0.1	1.3	1.0	1.6	4.0
Common milkweed	5	0.8	17.5	0.1	2.1	1.2	3.0	2.6
Wild rose	5	0.3	7.5	0.1	1.1	1.0	1.2	2.0
Quackgrass	2	0.3	15.0	0.1	3.4	3.4	3.4	1.3
Perennial sowthistle	2	0.2	10.0	< 0.1	0.8	0.8	0.8	1.1
Roundleaf mallow	2	0.2	10.0	< 0.1	0.4	0.4	0.4	1.0
Weed free	5	0.5	10.0	—	—	—	—	—

Table 117. Ward County weed infestations based on 44 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	91	79.7	87.6	53.6	59.0	2.4	255.2	235.0
Wild oats	61	19.2	31.3	2.3	3.8	0.6	39.6	45.1
Redroot pigweed	41	13.5	33.1	1.2	3.0	0.2	13.2	30.0
Wild buckwheat	30	12.5	42.3	1.3	4.4	0.8	20.0	25.4
Common lambsquarters	20	6.8	33.3	0.4	2.1	0.4	5.4	14.6
Wild mustard	16	4.8	30.0	0.3	1.9	0.4	6.6	10.8
Kochia	16	4.1	25.7	0.3	1.9	0.2	8.8	10.1
Volunteer sunflower	14	1.0	7.5	0.1	0.4	0.2	0.8	5.7
Barnyardgrass	9	2.0	22.5	0.1	1.1	0.2	1.6	5.3
Wild rose	11	1.1	10.0	0.1	0.6	0.4	1.0	5.1
Large crabgrass	5	1.1	25.0	0.1	1.3	0.4	2.2	2.8
Field bindweed	2	1.1	50.0	0.2	10.0	10.0	10.0	2.4
Field pennycress	5	0.2	5.0	< 0.1	0.2	0.2	0.2	1.8
Russian thistle	2	0.8	35.0	< 0.1	2.2	2.2	2.2	1.7
Prickly lettuce	2	0.5	20.0	0.1	2.4	2.4	2.4	1.3
Canada thistle	2	0.3	15.0	0.1	3.2	3.2	3.2	1.3
Prostrate pigweed	2	0.3	15.0	< 0.1	0.6	0.6	0.6	1.1
Weed free	27	8.9	32.5	—	—	—	—	—

Table 118. Wells County weed infestations based on 38 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	87.4	87.4	61.3	61.3	2.8	264.8	263.6
Redroot pigweed	68	22.5	32.9	2.6	3.8	0.2	13.2	51.4
Wild oats	58	23.3	40.2	3.4	5.9	0.2	30.2	50.5
Wild buckwheat	63	21.3	33.7	2.0	3.1	0.2	10.4	47.0
Yellow foxtail	37	14.1	38.2	5.5	15.1	0.6	146.4	39.3
Wild mustard	45	12.8	28.5	1.8	4.1	0.4	34.6	31.9
Russian thistle	47	11.3	23.9	1.5	3.1	0.2	14.6	30.6
Common lambsquarters	45	10.4	23.2	1.0	2.3	0.2	9.2	27.7
Field bindweed	34	12.0	35.0	1.7	5.0	0.2	15.0	27.3
Kochia	50	8.3	16.6	0.7	1.5	0.2	10.8	26.7
Prostrate spurge	26	2.0	7.5	0.2	0.6	0.2	3.0	11.1
Canada thistle	16	2.0	12.5	0.3	2.2	0.2	5.8	8.0
Field pennycress	18	1.7	9.3	0.1	0.5	0.2	1.0	8.0
Volunteer sunflower	8	2.9	36.7	0.8	10.3	0.2	29.0	7.4
Perennial sowthistle	18	0.9	5.0	0.1	0.3	0.2	0.6	7.2
Prostrate pigweed	13	1.8	14.0	0.2	1.3	0.2	4.0	6.6
Common purslane	11	1.3	12.5	0.1	1.3	0.2	3.8	5.1
Flixweed	5	1.7	32.5	0.2	3.2	0.4	6.0	3.9
Dwarf mallow	8	0.8	10.0	< 0.1	0.5	0.2	1.0	3.5
Quackgrass	8	0.5	6.7	0.1	0.9	0.4	1.6	3.3
Common cocklebur	8	0.4	5.0	< 0.1	0.3	0.2	0.4	3.1
Barnyardgrass	5	0.9	17.5	0.1	2.0	1.4	2.6	2.9
Greenflower pepperweed	5	0.7	12.5	< 0.1	0.6	0.4	0.8	2.5
Nightflowering catchfly	5	0.4	7.5	< 0.1	0.4	0.2	0.6	2.2
Skeleton weed	5	0.3	5.0	< 0.1	0.2	0.2	0.2	2.0
Wild barley	3	0.5	20.0	< 0.1	1.4	1.4	1.4	1.5
Ragweed	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.0
Wild rose	3	0.1	5.0	< 0.1	0.6	0.6	0.6	1.0
Weed free	32	7.8	24.6	—	—	—	—	—

Table 119. Williams County weed infestations based on 35 surveyed fields, 1979.

Weed species	Weed Frequency (%)	Field Uniformity Per cent		Weed Density Plants/M ²		Density Range Plants/M ²		Weed Index
		All	Inf.	All	Inf.	Low	Hi	
Green foxtail	100	85.3	85.3	67.7	67.7	0.2	292.2	276.7
Redroot pigweed	71	21.6	30.2	7.1	9.9	0.2	184.0	61.8
Wild oats	54	21.1	38.9	5.0	9.3	0.2	36.4	51.0
Wild buckwheat	54	14.6	26.8	1.0	1.8	0.2	6.4	34.9
Common lambsquarters	40	8.4	21.1	0.7	1.7	0.2	8.4	23.4
Prostrate pigweed	31	6.4	20.5	0.4	1.3	0.2	5.4	17.9
Russian thistle	31	6.4	20.5	0.4	1.2	0.2	3.4	17.8
Field bindweed	17	4.3	25.0	0.6	3.3	0.2	15.0	11.3
Wild mustard	20	3.3	16.4	0.2	1.1	0.2	3.2	10.4
Common purslane	9	2.7	31.7	1.6	18.7	0.2	51.8	9.3
Flixweed	20	2.1	10.7	0.1	0.6	0.2	1.6	9.1
Field pennycress	17	2.1	12.5	0.1	0.6	0.2	1.2	8.1
Kochia	14	2.6	18.0	0.2	1.1	0.2	2.8	7.7
Nightflowering catchfly	14	1.7	12.0	0.1	0.5	0.2	1.4	6.6
Canada thistle	11	1.4	12.5	0.3	2.5	1.6	3.4	5.9
Wild rose	11	1.3	11.2	0.2	1.5	0.2	4.2	5.5
Perennial sowthistle	9	1.7	20.0	0.2	2.0	0.8	4.4	5.0
Common dandelion	3	1.3	45.0	0.1	3.4	3.4	3.4	2.5
Prostrate spurge	6	0.3	5.0	< 0.1	0.2	0.2	0.2	2.2
Greenflower pepperweed	3	0.4	15.0	< 0.1	1.4	1.4	1.4	1.5
Common cocklebur	3	0.4	15.0	< 0.1	1.0	1.0	1.0	1.4
Yellow foxtail	3	0.1	5.0	0.1	2.6	2.6	2.6	1.3
Knotweeds	3	0.3	10.0	< 0.1	0.4	0.4	0.4	1.3
Wild vetch	3	0.3	10.0	< 0.1	1.0	1.0	1.0	1.3
Dock	3	0.3	10.0	< 0.1	0.6	0.6	0.6	1.3
Silver cinquefoil	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.1
Marshelder	3	0.1	5.0	< 0.1	0.4	0.4	0.4	1.1
Volunteer sunflower	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.1
Volunteer rye	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.1
Waterpod	3	0.1	5.0	< 0.1	0.2	0.2	0.2	1.1
Weed free	23	2.3	10.0	< —	—	—	—	—

Table 120. Weed frequency and density (infested fields) of the 11 weeds with the largest weed index in 259 semidwarf and 348 normal height wheat fields in 1979 and in 86 semidwarf and 113 normal height wheat fields in 1978.

Weed	Semidwarf Wheat			Weed	Normal Height Wheat		
	Weed Freq (%)	Weed Density (PL/M ²)	Weed Index		Weed Freq (%)	Weed Density (PL/M ²)	Weed Index
1979							
Green foxtail	94	71.0	269	Green foxtail	95	79.9	295
Wild oats	73	8.9	73	Wild buckwheat	76	4.3	64
Redroot pigweed	68	7.4	60	Redroot pigweed	74	6.8	63
Wild buckwheat	72	4.0	59	Wild oats	63	8.1	62
Yellow foxtail	32	28.2	48	Yellow foxtail	24	25.9	36
Wild mustard	40	2.8	27	Russian thistle	40	6.6	33
Common lambsquarters	32	3.4	21	Common lambsquarters	44	3.9	32
Russian thistle	29	3.5	20	Wild mustard	44	4.3	32
Kochia	20	4.6	14	Kochia	28	2.7	17
Canada thistle	20	2.4	12	Field bindweed	19	6.0	15
Field bindweed	13	7.1	11	Canada thistle	18	2.5	11
Weed free	18	—	—	Weed free	14	—	—
1978							
Green foxtail	97	59.7	252	Green foxtail	100	44.7	231
Wild oats	87	9.8	92	Wild oats	65	11.4	66
Wild buckwheat	45	4.4	38	Wild buckwheat	63	4.1	51
Redroot pigweed	48	3.3	36	Redroot pigweed	62	4.1	46
Yellow foxtail	22	14.5	25	Yellow foxtail	12	23.5	17

Table 120 (continued)

Weed	Semidwarf Wheat			Weed	Normal Height Wheat		
	Weed Freq (%)	Weed Density (PL/M ²)	Weed Index		Weed Freq (%)	Weed Density (PL/M ²)	Weed Index
Kochia	34	1.4	18	Russian thistle	19	5.7	15
Russian thistle	17	3.1	12	Kochia	20	1.7	12
Common lambsquarters	15	1.8	9	Ntflowering catchfly	13	6.0	12
Canada thistle	12	1.8	6	Wild mustard	17	3.0	11
Volunteer sunflower	12	1.0	6	Canada thistle	12	3.4	9
Ntflowering catchfly	7	3.6	6	Common lambsquarters	15	1.5	9
Weed free	15	—	—	Weed free	23	—	—

Table 121. Frequency and density (infested fields) of the eight weeds with the largest weed index in 1979 wheat fields which in 1978 had wheat (156 samples), barley (22 samples), fallow (329 samples), oats (20 samples), sugarbeet (10 samples), sunflower (44 samples), soybeans or dry beans (18 samples) and potatoes (9 samples).

Weed	Weed Freq (%)	Weed Density (PL/M ²)	Weed Index	Weed	Weed Freq (%)	Weed Density (PL/M ²)	Weed Index
Wheat previous crop				Barley previous crop			
Green foxtail	97	80.4	290	Green foxtail	91	120.3	364
Wild buckwheat	75	5.0	68	Yellow foxtail	50	41.9	92
Wild oats	72	6.1	66	Wild oats	73	12.3	85
Redroot pigweed	64	5.7	50	Wild buckwheat	86	5.3	83
Yellow foxtail	36	22.0	48	Redroot pigweed	73	4.0	58
Wild mustard	48	3.3	35	Wild mustard	41	1.4	24
Common lambsquarters	48	3.6	34	Common lambsquarters	27	8.7	22
Russian thistle	36	3.3	24	Canada thistle	18	3.3	12
Fallow previous year				Oats previous crop			
Green foxtail	95	71.7	273	Green foxtail	90	118.8	352
Redroot pigweed	76	8.6	69	Yellow foxtail	45	70.4	111
Wild buckwheat	71	3.9	56	Wild buckwheat	70	3.9	59
Wild oats	60	7.4	55	Wild mustard	60	7.4	58
Russian thistle	41	5.4	31	Russian thistle	65	5.8	56
Wild mustard	43	3.0	29	Wild oats	55	6.5	56
Common lambsquarters	44	3.1	29	Redroot pigweed	40	8.4	40
Yellow foxtail	16	20.8	20	Field bindweed	35	7.7	37
Sugarbeet previous crop				Sunflower previous crop			
Green foxtail	100	27.8	183	Green foxtail	95	69.6	271
Redroot pigweed	100	7.4	117	Yellow foxtail	70	34.0	118
Yellow foxtail	50	16.5	69	Wild buckwheat	84	2.7	61
Wild buckwheat	50	5.6	54	Wild oats	57	3.4	45
Kochia	50	2.8	36	Volunteer sunflower	50	4.6	40
Ntflowering catchfly	20	13.8	29	Redroot pigweed	59	2.4	36
Wild oats	30	3.4	27	Kochia	30	7.6	23
Common lambsquarters	30	3.9	22	Canada thistle	36	2.0	20
Beans previous crop				Potatoes previous crop			
Green foxtail	94	56.1	239	Green foxtail	100	60.6	275
Wild oats	72	10.2	85	Wild oats	100	7.6	117
Yellow foxtail	56	11.8	67	Wild buckwheat	78	7.7	87
Wild mustard	56	4.3	52	Redroot pigweed	44	9.3	41
Wild buckwheat	67	1.8	42	Canada thistle	33	0.9	17
Canada thistle	39	1.9	22	Russian thistle	22	0.7	10
Redroot pigweed	28	2.5	20	Yellow foxtail	11	1.8	9
Volunteer sunflower	17	3.0	12	Wild mustard	11	1.0	7

Table 122. Rate of usage and month of application of various herbicides by survey respondents, 1979.

Herbicide	Resp (No.)	Herbicide Usage Rate					Month of Herbicide Application							
		Low		High			Apr (%)	May (%)	Jun (%)	Jul (%)	Aug (%)	Sep (%)	Oct (%)	Nov (%)
		Correct (%)	Correct (%)	Correct (%)	High (%)									
2,4-D	433	2	45	48	3	2	—	1	80	18	<1	—	<1	—
Trifluralin	241	2	37	31	20	10	—	50	49	—	<1	<1	—	—
MCPA	85	2	39	49	5	5	—	2	86	12	—	—	—	—
Triallate	78	22	64	8	2	4	1	55	22	—	—	—	20	2
Tria + trifl	74	37	54	7	1	1	—	61	39	—	—	—	—	—
Barban	49	33	55	12	—	—	—	17	82	—	—	—	1	—
EPTC	24	37	17	17	17	12	—	61	30	—	—	—	9	—
Difenzoquat	16	19	25	19	37	—	—	—	100	—	—	—	—	—
Propanil	11	9	73	20	—	—	—	9	82	9	—	—	—	—
Profluralin	11	—	45	37	18	—	—	43	57	—	—	—	—	—

Table 123. Number and percentage of survey respondents indicating a given weed as their worst weed in 1978 and 1979 and 5 years past (1978 survey only).

Weed	Respondents Indicated as Worst Weed					
	1979		1978		5 Yr. Past	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
Wild oats	412	36	211	53	172	61
Foxtail	291	25	79	20	24	9
Field bindweed	151	13	28	7	21	7
Canada thistle	116	10	26	6	15	5
Wild mustard	55	5	23	6	17	6
Leafy spurge	43	4	2	<1	1	<1
Kochia	28	2	7	2	5	2
Quackgrass	18	2	12	3	19	7
Wild buckwheat	15	1	4	1	2	1
Redroot pigweed	12	1	5	1	2	1
Perennial sowthistle	9	1	4	1	2	1

Table 124. Number and percentage of survey respondents indicating the use of delayed seeding for wild oats control in various crops, 1979 and 1978.

Crop	Respondents Using Delayed Seeding			
	1979		1978	
	(No.)	(%)	(No.)	(%)
Wheat	361	59	115	71
Barley	38	54	27	71
Oats	29	57	6	67
Flax	20	65	5	83
Sunflower	157	62	—	—
Total	605	59	153	71

Table 125. Number and percent of respondents indicating various numbers of tillage operations in the fall, on summerfallow, in the spring and in the spring on delayed seeded fields in 1979.

Tillage Operations (No.)	Fall		Summerfallow		All Spring		Spring Delayed Seeding	
	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)
1	312	62	6	1	378	37	134	26
2	139	28	24	5	455	44	251	48
3	44	9	119	24	140	14	100	19
4	3	1	151	30	49	5	31	6
5	4	1	116	23	8	1	6	1
6	1	<1	45	9	—	—	—	—
7	—	—	20	4	—	—	—	—
8	—	—	11	2	—	—	—	—
10-15	—	—	7	1	1	<1	1	<1

Table 126. Implements used to seed crops as reported by survey respondents in 1978 and 1979, data combined.

Seeding implement	Responses	
	(No.)	(%)
Hoe drill	16	2
Double disk press drill	991	96
Pony press	21	2
Disk seeder	8	<1

Table 127. Number and percentage of survey respondents indicating the use of various tillage implements in 1978 and 1979, data combined.

Tillage Implement	Responses for Tillage Operations					
	Spring		Summerfallow		Fall	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
Moldboard plow	156	9	36	4	267	31
Chisel plow	189	10	321	37	254	29
Field cultivator	970	53	407	47	231	26
Tandem disk	116	6	39	4	88	10
Harrow	213	12	26	3	11	1
One-way disk	8	<1	7	1	8	1
Cultivator with rodweeder	11	1	12	1	—	—
Rodweeder	11	1	19	2	3	<1
Plow-pack-pony press	82	5	—	—	—	—
Offset disk	3	<1	5	1	5	<1
Multiweeder	31	2	—	—	—	—
Cultivator and harrow	24	1	3	<1	6	1

Table 128. Number of tillages in the spring and fall with various implements as reported by survey respondents in 1978.

Tillage Implement	(No.)	Response to Number of Tillage Operations			
		Spring		Fall	
		(No.)	(%)	(No.)	(%)
Chisel plow	1	38	60	55	66
	2	22	35	23	28
	3	3	5	3	4
	4 or more	—	—	2	3

Table 128 (continued)

Tillage Implement	(No.)	Response to Number of Tillage Operations			
		Spring		Fall	
		(No.)	(%)	(No.)	(%)
Field cultivator	1	111	50	38	75
	2	99	44	13	25
	3	13	6	—	—
	4 or more	1	< 1	—	—
Tandem disk	1	30	94	26	96
	2	2	6	1	4
Harrow	1	57	68	—	—
	2	22	26	—	—
	3 or more	5	6	—	—

Table 129. Number and percent of survey respondents indicating various fallow frequency, 1978.

Summerfallow frequency	Responses	
	(No.)	(%)
Every other year	57	24
Every third year	38	16
Every fourth year	138	59

Table 130. Number and percentage of 1979 surveyed fields which followed various 1978 crops as reported by respondents.

1978 Crop	Number and Percentage of 1979 Surveyed Fields									
	Wheat		Barley		Oats		Flax		Sunflower	
	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)
Wheat	156	24	48	54	17	26	19	49	158	56
Barley	22	3	11	12	2	3	8	21	49	17
Oats	20	3	1	1	7	11	2	5	13	5
Summerfallow	329	50	8	9	10	15	2	5	20	7
Sugarbeet	10	2	2	2	—	—	—	—	1	<1
Sunflower	44	7	11	12	1	2	1	3	13	5
Beans	18	3	1	1	1	2	—	—	4	1
Corn	32	5	4	4	15	23	—	—	10	4
Potatoes	9	1	—	—	—	—	—	—	1	<1
Flax	3	<1	1	1	1	1	5	13	3	1
Legume forage	8	1	1	1	7	11	—	—	4	1
Sudangrass	1	<1	1	1	2	3	—	—	—	—
Rapeseed	5	1	—	—	—	—	—	—	—	—
Rye	1	<1	—	—	1	2	2	5	5	2
Millet	3	<1	—	—	1	2	—	—	1	<1
Mustard	1	<1	—	—	—	—	—	—	1	<1

Table 131. Number and percentage of the 1183 survey respondents who had farmed the surveyed fields for the specified years prior to 1979.

Time That Field Was Farmed by Respondent (Years)	Respondents	
	(No.)	(%)
1-10	359	30
11-20	275	23
21-30	293	25
31-40	194	16
41-50	46	4
51-60	16	1

Table 132. Number and percentage of the 1134 survey respondents with various acreages of farm operations, 1979.

Farm Operation (Acres)	Respondents	
	(No.)	(%)
0-320	86	8
321-640	217	19
641-960	211	19
961-1280	184	16
1281-1600	142	13
1601-1920	61	5
1921-2240	68	6
2241-2560	54	5
2561-3200	40	4
3201-3840	31	3
3841-5500	32	3
5501-18000	8	1

Table 133. Number and percentage of the 1134 survey respondents by various age groupings, 1979.

(Age)	(No.)	(%)
15-20	7	1
21-30	145	13
31-40	224	20
41-50	277	24
51-60	307	27
61-70	139	12
71-80	34	3

Table 134. Wheat and barley losses in North Dakota from various weeds in 1978 and 1979 based upon individual weed competition data.

Year and Weed	Wheat					Barley				
	Weed Infestations					Weed Infestations				
	Weed Freq (%)	Weed Density (Pl/M ²)	Acres (1000)	Yield Loss (%)	Grain Loss (1000 Bu)	Weed Freq (%)	Weed Density (Pl/M ²)	Acres (1000)	Yield Loss (%)	Grain Loss (1000 Bu)
1978										
Green foxtail	94	43.3	9,212	3.0	8,475	98	43.3	2,450	2.3	2,653
Yellow foxtail	17	18.5	1,666	1.5	756	2	18.0	50	1.1	26
Wild oats	67	9.5	6,566	8.0	17,014	63	11.3	1,575	7.1	5,537
Wild buckwheat	54	5.2	5,292	1.5	2,402	53	8.6	1,325	1.5	928
Wild mustard	12	2.8	1,176	2.0	715	13	3.2	325	1.7	259
Field bindweed	9	7.6	882	18.0	5,770	9	6.6	225	8.9	999
Canada thistle	11	3.5	1,078	17.0	6,580	15	4.6	375	15.0	3,044
Total				(14.3)	41,712				11.7	13,446
1979										
Green foxtail	95	74.6	9,405	5.0	13,018	99	93.5	1,717	4.7	3,895
Yellow foxtail	27	21.1	2,673	1.5	1,070	25	34.3	425	1.7	338
Wild oats	67	7.6	6,633	7.0	13,130	67	8.0	1,139	5.1	2,816
Wild buckwheat	66	4.2	6,534	1.0	1,735	86	5.0	1,462	0.8	542
Wild mustard	39	3.4	3,861	2.4	2,497	32	2.1	544	1.1	278
Field bindweed	19	5.0	1,881	9.0	4,893	10	2.8	170	3.8	309
Canada thistle	17	2.3	1,683	15.0	7,811	32	3.4	544	12.7	3,640
Total				(17.0)	44,154				15.1	11,818

^a Acres infested was obtained by multiplying weed frequency by crop acres which was 9.8 million (M) for wheat and 2.5 M for barley in 1978 and 9.9 M for wheat and 1.7 M for barley in 1979.

^b Per cent yield loss caused by weed competition was for the weed density in occurrence fields based upon competition data from the literature as follows: green and yellow foxtail (assumed similar), wild oats, wild mustard, and wild buckwheat (6), field bindweed (3) and Canada thistle (4). Total % loss () is based on all acres.

^c Grain loss based upon average North Dakota production of 29.8 bu/A for wheat and 46.0 bu/A for barley in 1978 and 26.3 bu/A for wheat and 46.0 bu/A for barley in 1979. Losses from weed competition in barley were only available for wild oats where loss in barley was about 25% less than in wheat for wild oats plant (1). Thus, losses in barley from all weeds were assumed at 25% less than in wheat.

Figure 1

GREEN FOXTAIL DENSITY - 1978

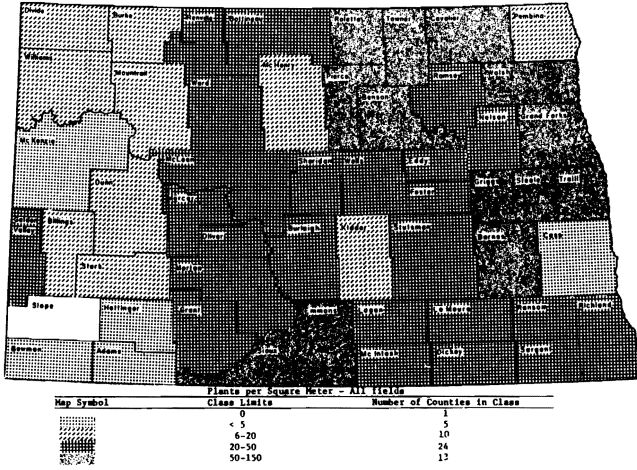


Figure 4

GREEN FOXTAIL FREQUENCY - 1979

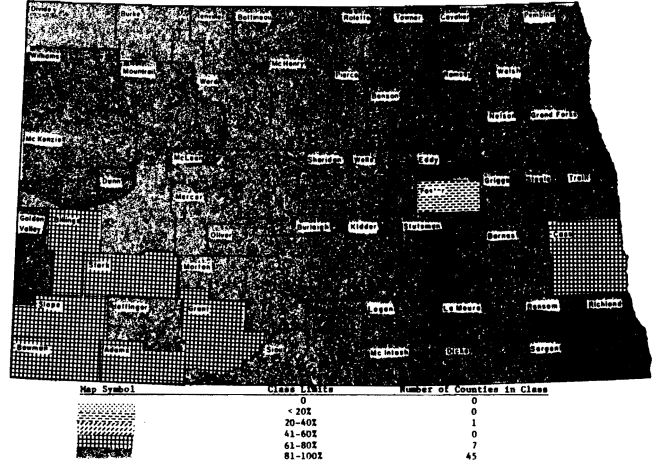


Figure 2

GREEN FOXTAIL FREQUENCY - 1978

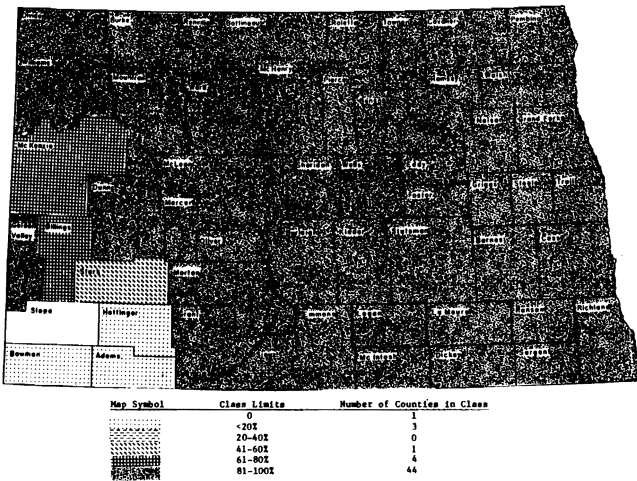


Figure 5

WILD OATS DENSITY - 1978

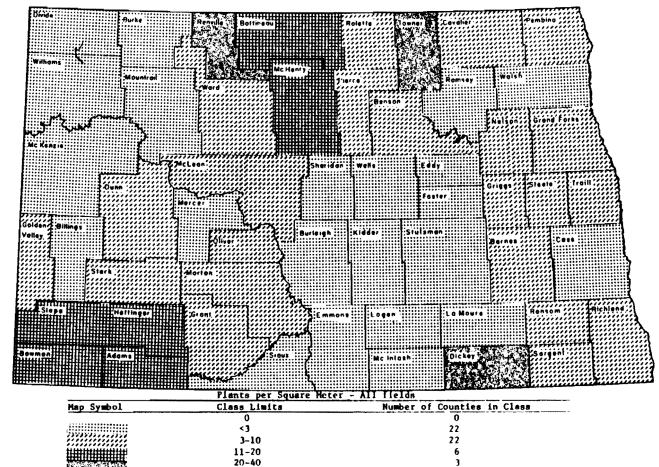


Figure 3

GREEN FOXTAIL DENSITY - 1979

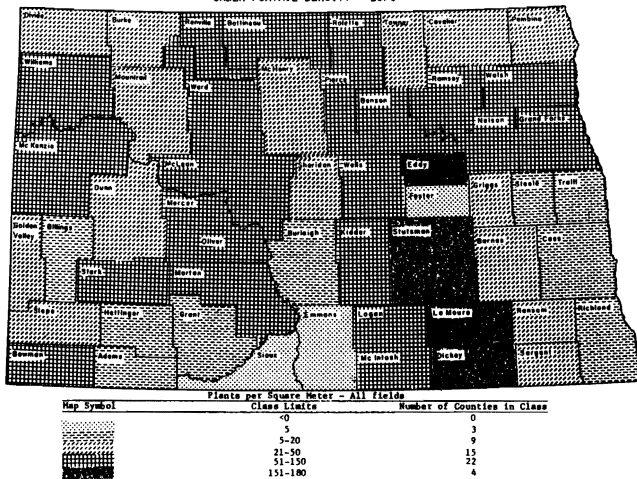


Figure 6

WILD OATS FREQUENCY - 1978

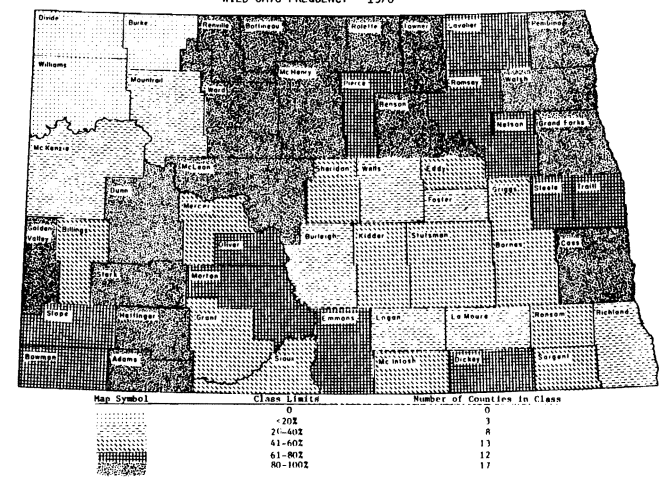


Figure 7

WILD OATS DENSITY - 1979

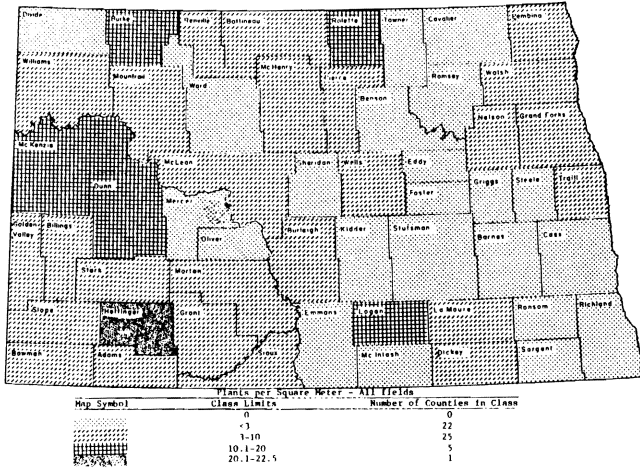


Figure 10

WILD BUCKWHEAT FREQUENCY - 1978

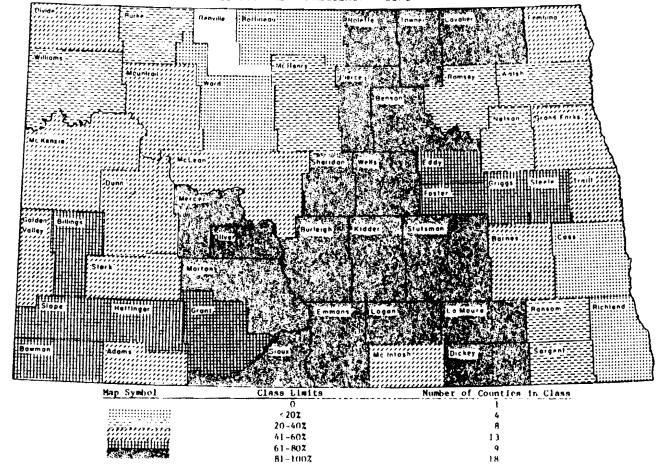


Figure 8

WILD OATS FREQUENCY - 1979

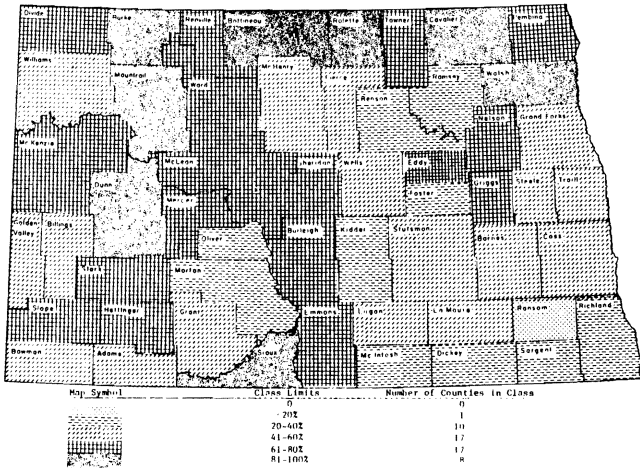


Figure 11

WILD BUCKWHEAT DENSITY - 1979

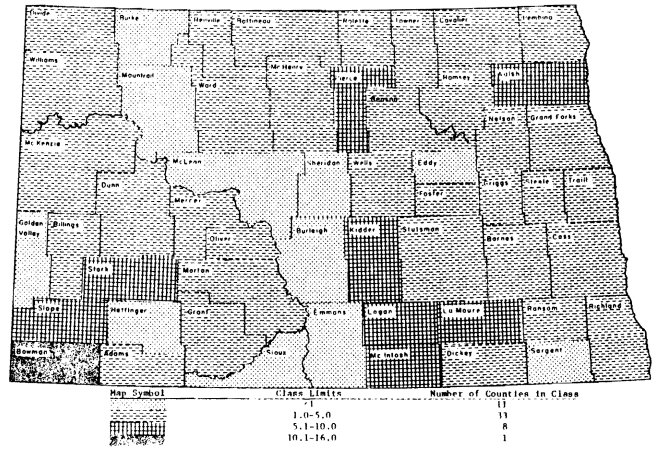


Figure 9

WILD BUCKWHEAT DENSITY - 1978

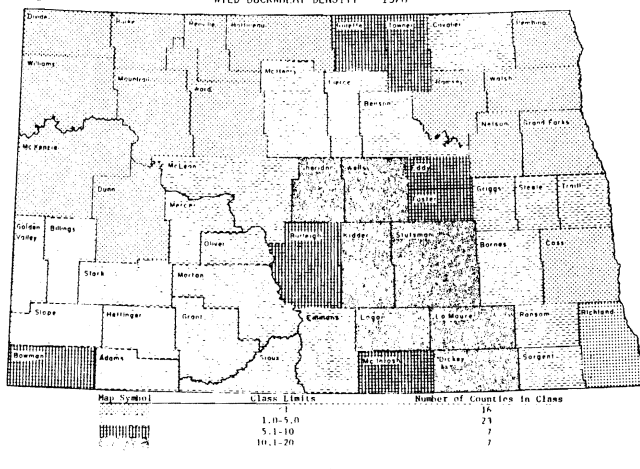


Figure 12

WILD BUCKWHEAT FREQUENCY - 1979

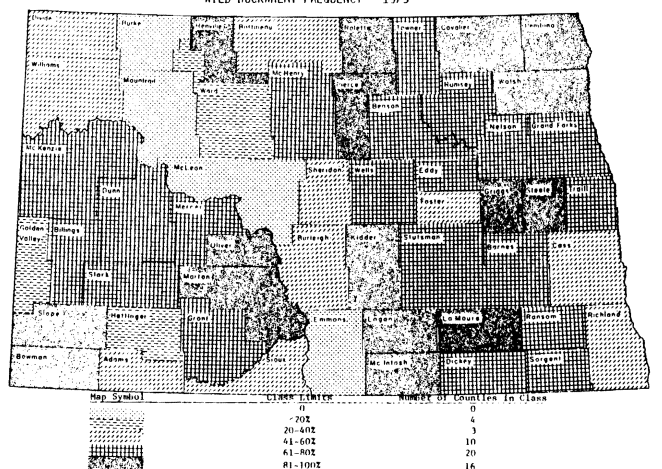


Figure 13

REDROOT PIGWEED DENSITY - 1978

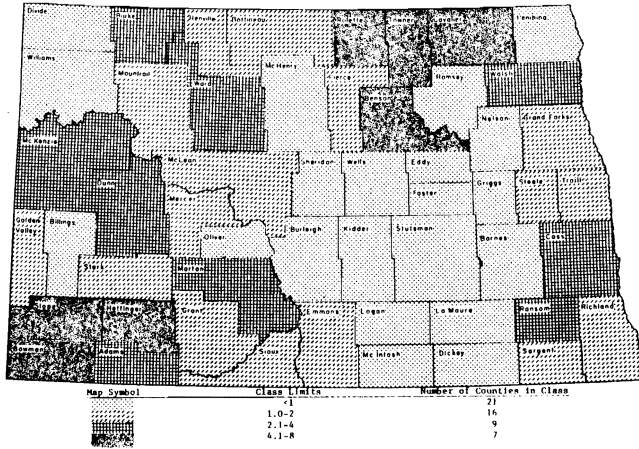


Figure 16

REDROOT PIGWEED FREQUENCY - 1979

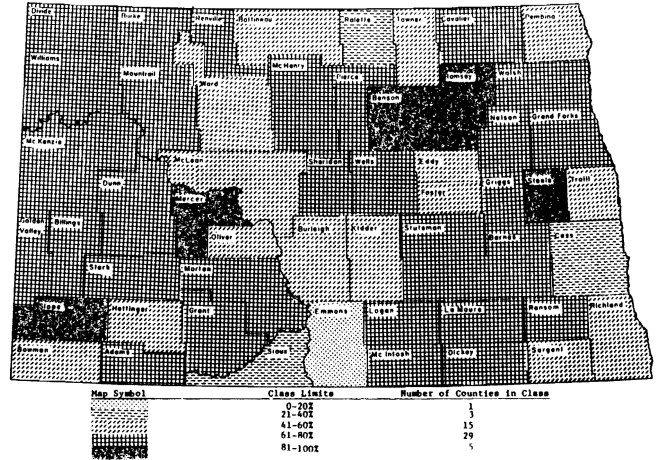


Figure 14

REDROOT PIGWEED FREQUENCY - 1978

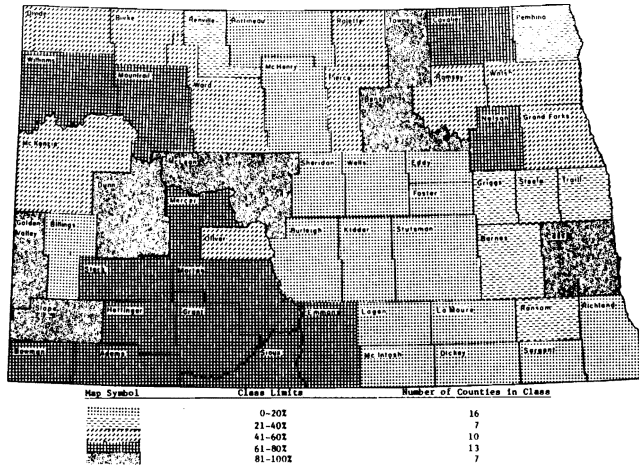


Figure 17

COMMON LABSQUARTERS DENSITY - 1978

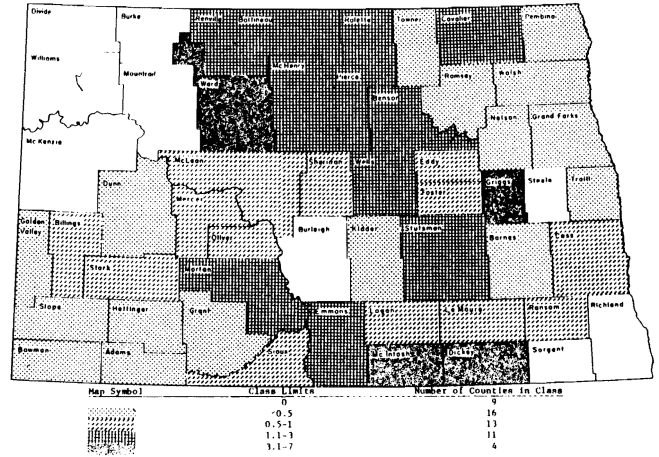


Figure 15

REDROOT PIGWEED DENSITY - 1979

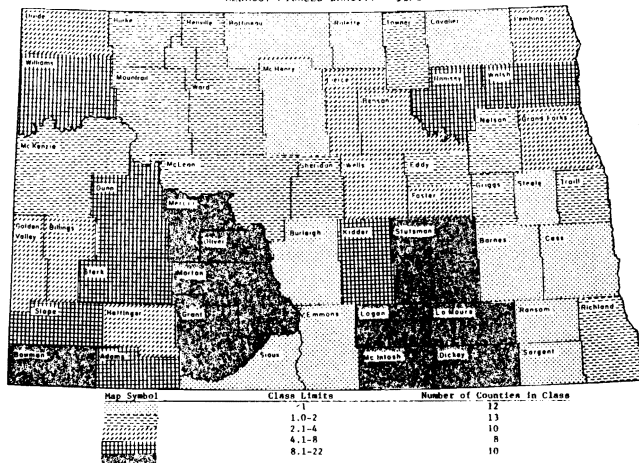


Figure 18

COMMON LABSQUARTERS FREQUENCY - 1978

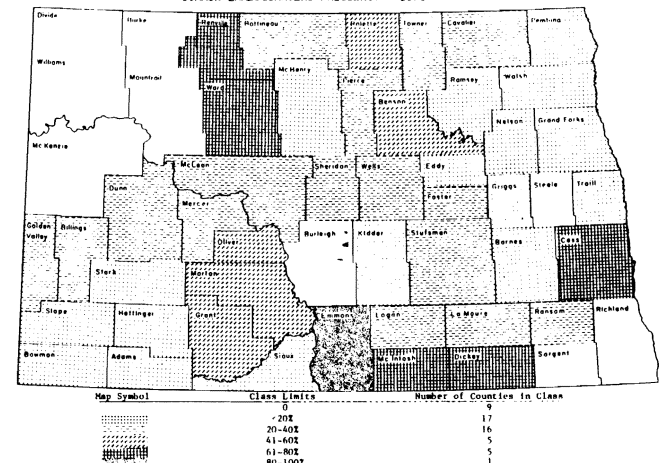


Figure 19

COMMON LAMBSQUARTERS DENSITY - 1979

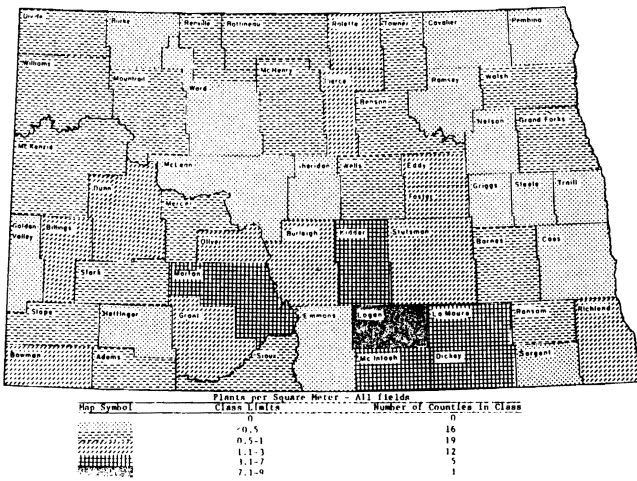


Figure 22

KOCHIA FREQUENCY - 1978

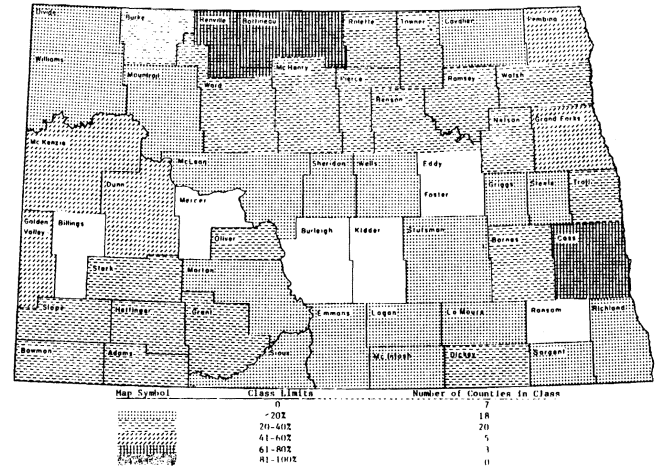


Figure 20

COMMON LAMBSQUARTERS FREQUENCY - 1979

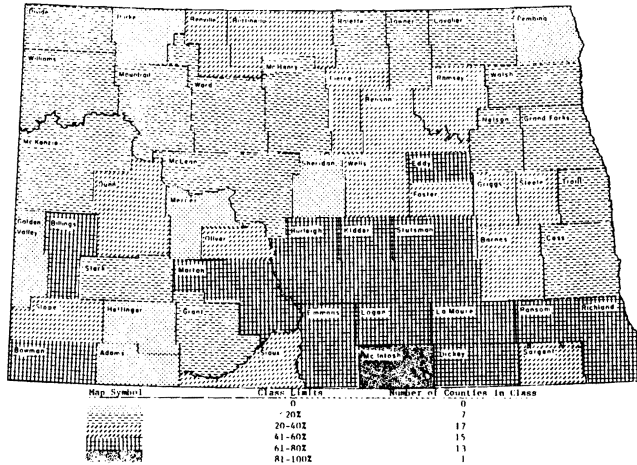


Figure 23

KOCHIA DENSITY - 1979

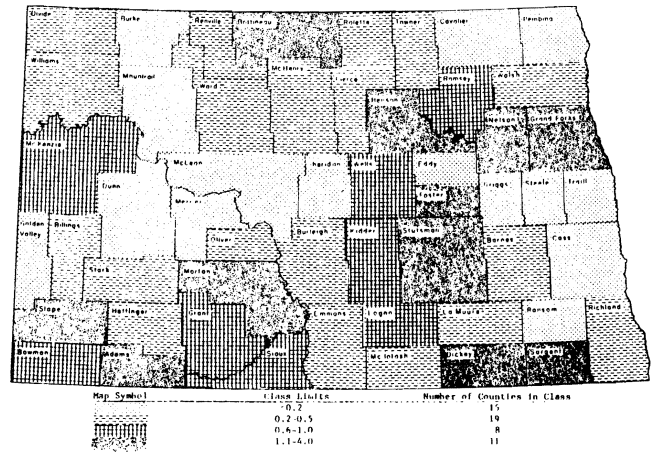


Figure 21

KOCHIA DENSITY - 1978

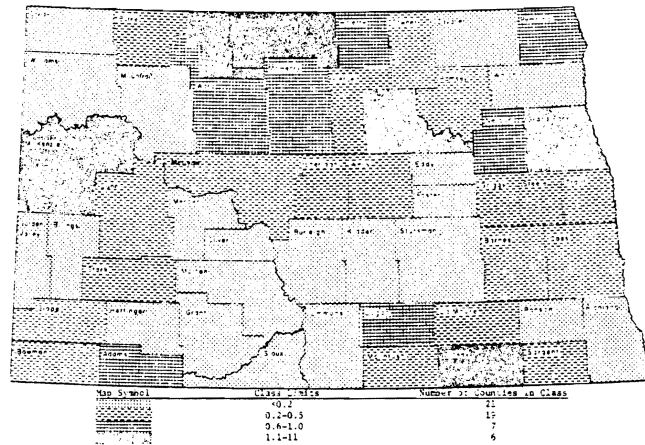


Figure 24

KOCHIA FREQUENCY - 1979

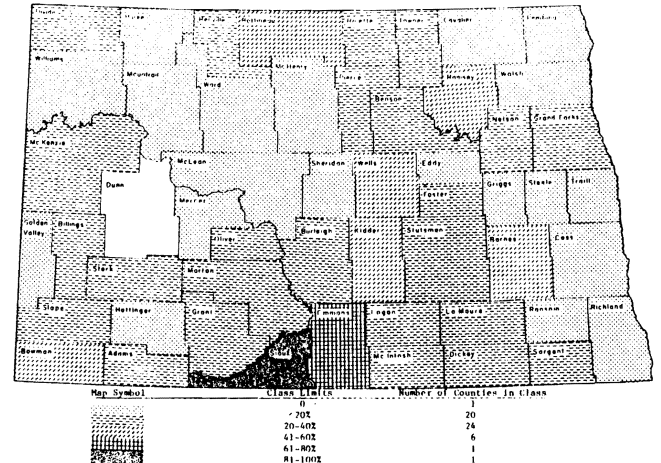


Figure 25

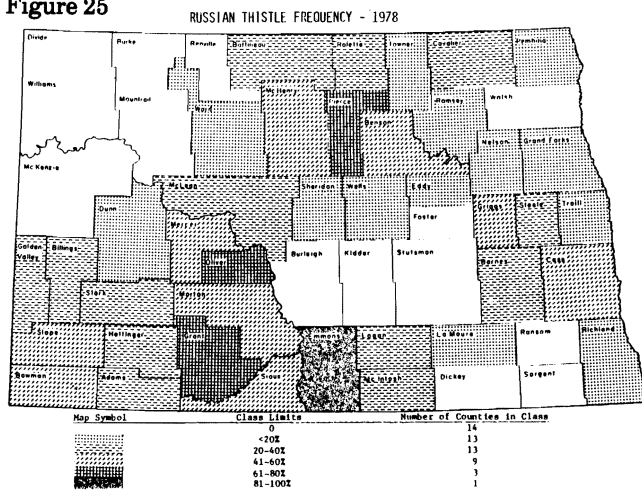


Figure 28

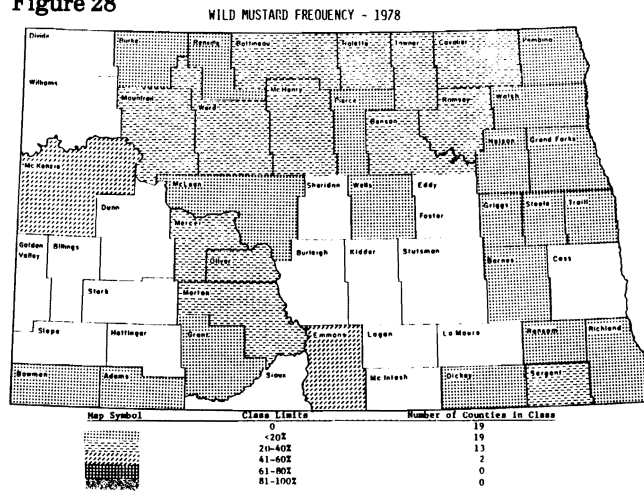


Figure 26

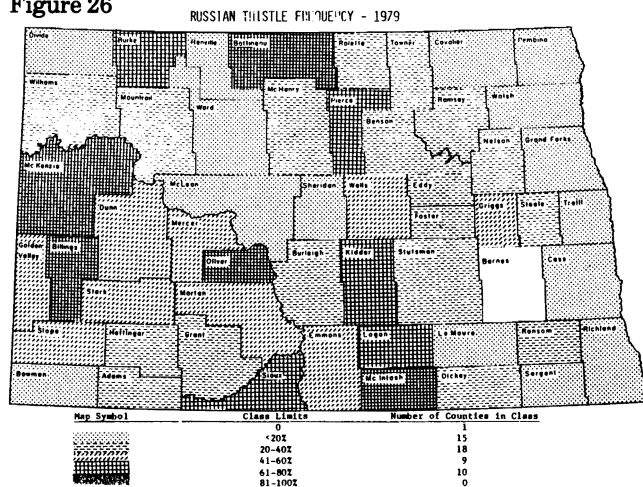


Figure 29

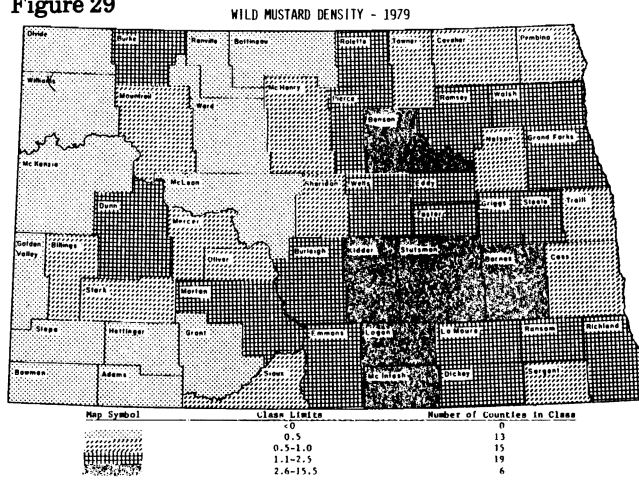


Figure 27

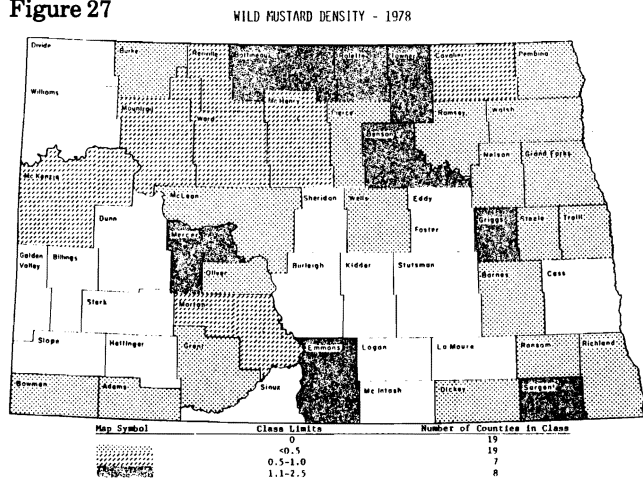


Figure 30

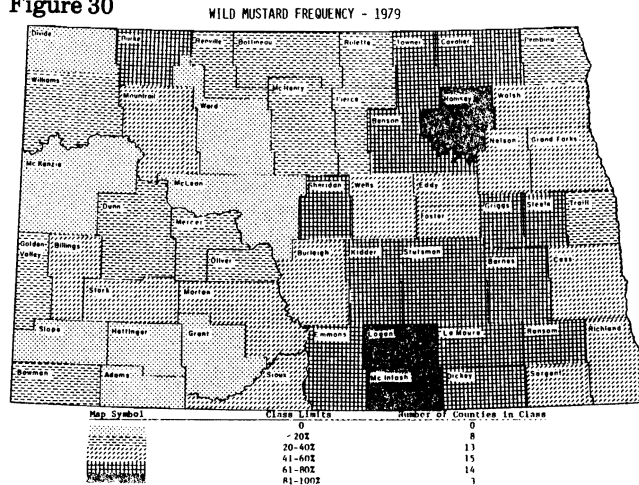


Figure 31

PERENNIAL SOWTHISTLE FREQUENCY - 1978

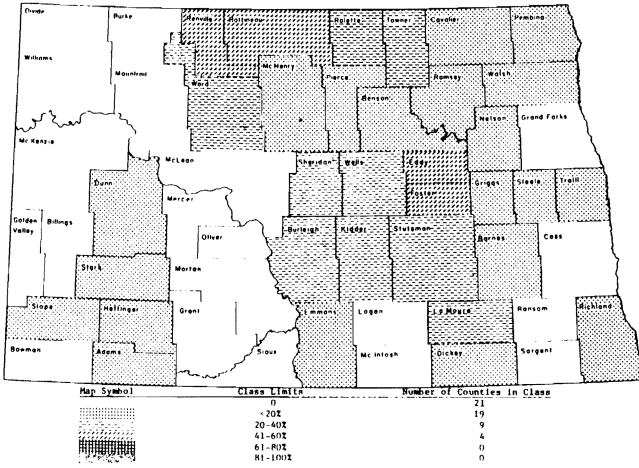


Figure 34

FIELD BINDWEED FREQUENCY - 1979

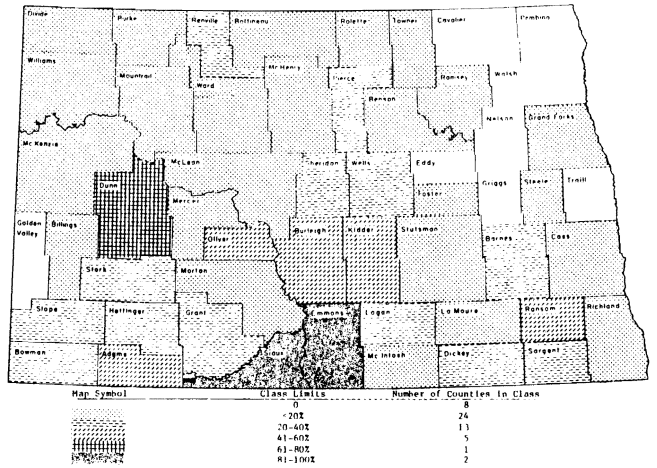


Figure 32

PERENNIAL SOWTHISTLE FREQUENCY - 1979

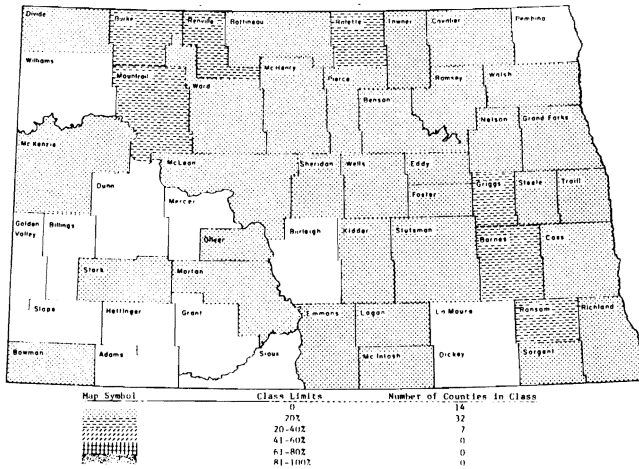


Figure 35

CANADA THISTLE FREQUENCY - 1978

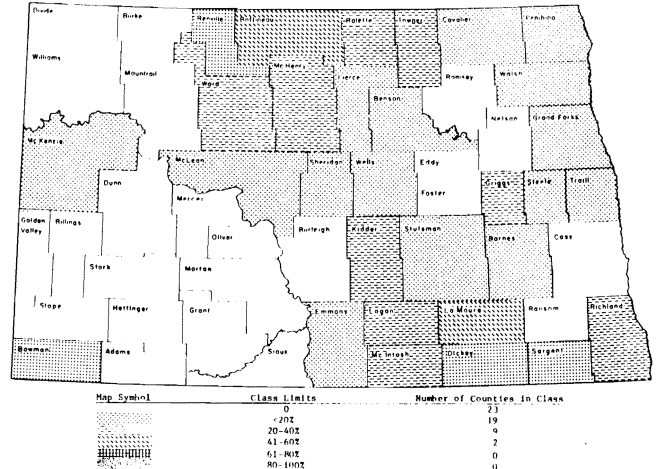


Figure 33

FIELD BINDWEED FREQUENCY - 1978

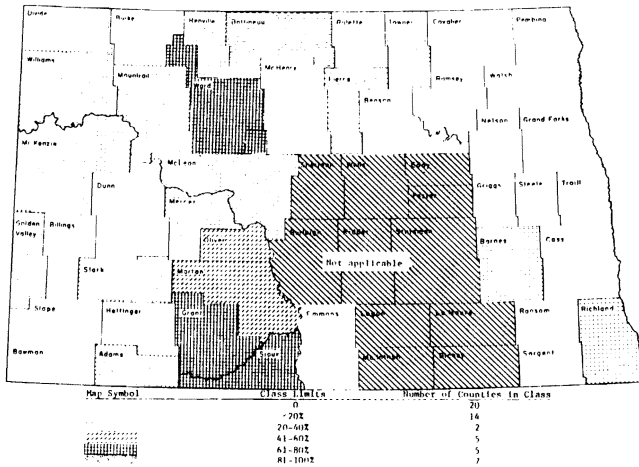


Figure 36

CANADA THISTLE FREQUENCY - 1979

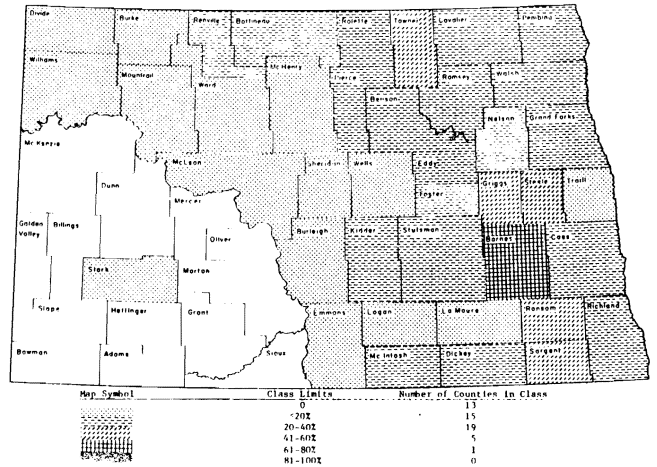


Figure 37

VOLUNTEER AND WILD SUNFLOWER FREQUENCY - 1978

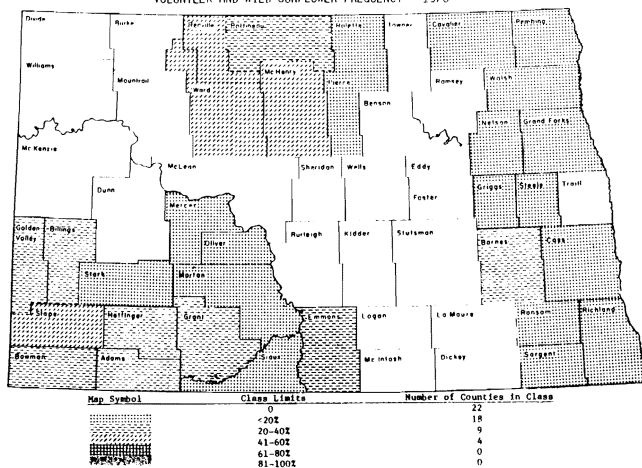


Figure 39

NIGHTFLOWERING CATCHFLY FREQUENCY - 1978

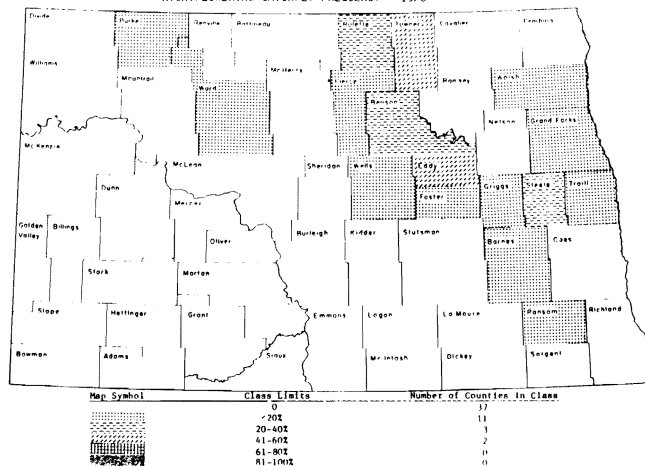


Figure 38

VOLUNTEER AND WILD SUNFLOWER FREQUENCY - 1979

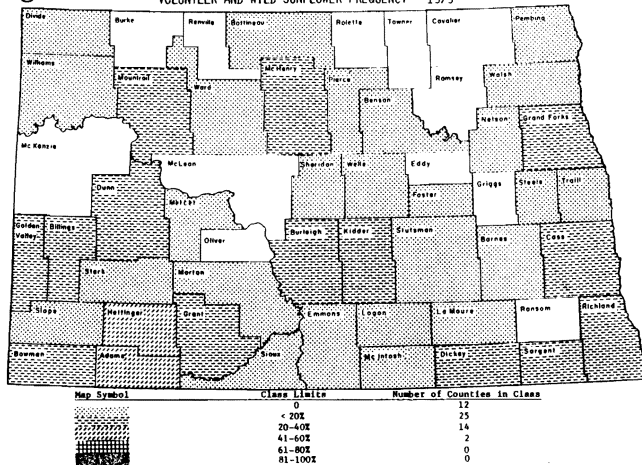
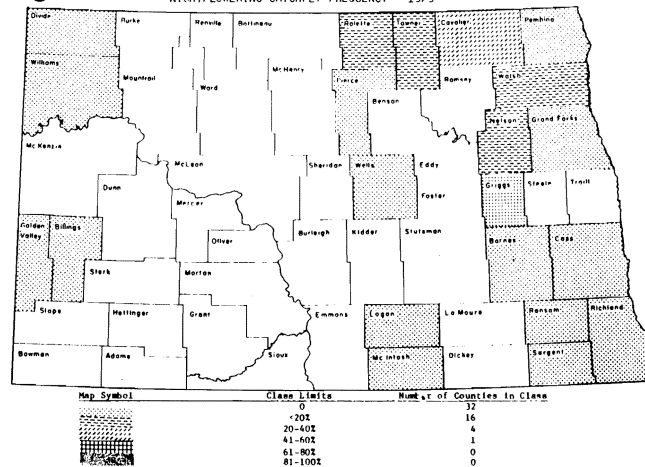


Figure 40

NIGHTFLOWERING CATCHFLY FREQUENCY - 1979



Appendix

Scientific and common names of weeds which occurred in the 1978 and 1979 survey. Source: Stevens, O. A. 1950. Handbook of North Dakota Plants. ND Inst. for Regional Studies. 324 p.

Common Name	Scientific Name	Common Name	Scientific Name
Alfalfa, volunteer	<i>Medicago sativa</i> L.	Medic, black	<i>Medicago lupulina</i> L.
Barley, volunteer	<i>Hordeum vulgare</i> L.	Milkweed, common	<i>Asclepias syriaca</i> L.
Barley, wild	<i>Hordeum jubatum</i> L.	Millet, volunteer	<i>Setaria italica</i> (L.) Beauv.
Barnyardgrass	<i>Echinochloa crus-galli</i> (L.) Beauv.	Mint, wild	<i>Mentha arvensis</i> L.
Bindweed, field	<i>Convolvulus arvensis</i> L.	Mustard, ball	<i>Neslia paniculata</i> (L.) Desv.
Bindweed, hedge	<i>Convolvulus sepium</i> L.	Mustard, white	<i>Brassica hirta</i> Moench.
Brome, downy	<i>Bromus tectorum</i> L.	Mustard, wild	<i>Brassica kaber</i> var. (pinnatifida)
Bromegrass	<i>Bromus inermis</i> Leyss.	Needle and thread	<i>Stipa comata</i> Trin. & Rupr.
Buckwheat, wild	<i>Polygonum convolvulus</i> L.	Oats, tame, volunteer	<i>Avena sativa</i> L.
Buffalobur	<i>Solanum rostratum</i> Dunal.	Oats, wild	<i>Avena fatua</i> L.
Catchfly, nightflowering	<i>Silene noctiflora</i> L.	Pennycress, field	<i>Thlaspi arvense</i> L.
Chamomile, false	<i>Matricaria maritima</i> L. var. <i>agrestis</i> (Knaf) Wilmott	Pepperweed, greenflower	<i>Lepidium densiflorum</i> Schrud.
Chickweed, common	<i>Stellaria media</i> (L.) Cyrillo	Pigweed, prostrate	<i>Amaranthus blitoides</i> S. Wats.
Cinquefoil, silver	<i>Potentilla argentea</i> L.	Pigweed, redroot	<i>Amaranthus retroflexus</i> L.
Clover	<i>Melilotus</i> sp. or <i>Trifolium</i> sp. L.	Povertyweed	<i>Iva axillaris</i> Pursh.
Cocklebur, common	<i>Xanthium pensylvanicum</i> Wallr.	Purslane, common	<i>Portulaca oleracea</i> L.
Corn, volunteer	<i>Zea mays</i> L.	Quackgrass	<i>Agropyron repens</i> (L.) Beauv.
Crabgrass, large	<i>Digitaria sanguinalis</i> (L.) Koel.	Ragweed	<i>Ambrosia</i> sp.
Dandelion, common	<i>Taraxacum officinale</i> Weber	Rose, wild	<i>Rosa arkansana</i> Porter
Dock	<i>Rumex</i> sp.	Rye, volunteer	<i>Secale cereale</i> L.
Fieldcress, Australian	<i>Rorippa austriaca</i> (Crantz) Bess.	Sage, green	<i>Artemisia glauca</i> Pall.
Flax, volunteer	<i>Linum usitatissimum</i> L.	Salsify, western	<i>Tragopon dubius</i> Scop.
Flixweed	<i>Descurainia sophia</i> (L.) Webb.	Sandbur	<i>Cenchrus incertus</i> M.A. Curtis
Four-o'clock, wild	<i>Mirabilis nyctaginia</i> (Michx.) Mac M.	Scurf pea	<i>Psoralea lanceolata</i> Pursh.
Foxtail, green	<i>Setaria viridis</i> (L.) Beauv.	Shepherdspurse	<i>Capella bursa-pastoris</i> (L.) Medic.
Foxtail, Garrison creeping	<i>Alopecurus arundinaceus</i> Poir.	Skeletonweed	<i>Lygodesmia juncea</i> (Pursh) D. Don
Foxtail, yellow	<i>Setaria lutescens</i> (Weigel) Hubb.	Smartweed	<i>Polygonum</i> sp.
Fumitory	<i>Fumaria officinalis</i> L.	Snowberry, western	<i>Symphoricarpos</i> <i>occidentalis</i> Hook.
Geranium, wild	<i>Geranium maculatum</i> L. (Pursh) Dunal.	Sowthistle, perennial	<i>Sonchus arvensis</i> L.
Gumweed	<i>Grindelia squarrosa</i>	Soybean, volunteer	<i>Glycine max</i> (L.) Merr.
Horsetail, field	<i>Equisetum arvense</i> L.	Spurge, leafy	<i>Euphorbia esula</i> L.
Horseweed	<i>Conyza canadensis</i> (L.) Cronq.	Spurge, prostrate	<i>Euphorbia supina</i> Raf.
Knotweeds	<i>Polygonum</i> sp.	Sunflower, volunteer	<i>Helianthus annuus</i> L.
Kochia	<i>Kochia scoparia</i> (L.) Schrod.	Thistle, Canada	<i>Cirsium arvense</i> (L.) Scop.
Lambsquarters, common	<i>Chenopodium album</i> L.	Thistle, Flodman	<i>Cirsium flodmanii</i> (Rydb.) Arthur
Lettuce, prickly	<i>Lactuca serriola</i> L.	Thistle, musk	<i>Carduus nutans</i> L.
Licorice, wild	<i>Glycyrrhiza lepidota</i> (Nutt.) Pursh	Thistle, Russian	<i>Salsola kali</i> L. var. (<i>tenuifolia</i>) Tausch
Mallow, dwarf	<i>Malva rotundifolia</i> L.	Timothy	<i>Phleum pratense</i> L.
Mallow, roundleaf	<i>Malva neglecta</i> Wallr.	Vetch, wild	<i>Vicia americana</i> Muhl.
Marshelder	<i>Iva xanthifolia</i> Nutt.	Waterpod	<i>Ellisia nyctelea</i> L.
		Wheat, volunteer	<i>Triticum</i> sp.
		Witchgrass	<i>Panicum capillare</i> L.
		Woodsorrel, yellow	<i>Oxalis stricta</i> L.

