

Many Plant Specimens Are Identified for Correspondents

By O. A. Stevens¹

Since the writer's first association with North Dakota Agricultural College in September, 1909, one of his duties has been the identification of plant specimens, chiefly weeds. During this time some 15,000 inquiries have been received. One report has been published (*Scientific Monthly*, August 1923) and a second may be of interest. The annual number of samples identified has fluctuated somewhat but has been relatively constant. A complete record has been kept each year and many specimens have become part of the permanent herbarium.

During 1955 there were 300 requests. The actual tabulation is 302 but sometimes office calls may not have been recorded. In general the inquiries can be grouped under the following listings: weeds, 157; grasses, 51; trees and shrubs, 27; cultivated flowers, 12; wild flowers, 12; poisonous plants, 8; fungi, 6; edible plants, 1. Many of the annual grasses would better be included among weeds and frequently a grass specimen was included with one of a weed or shrub.

County extension agents sent in 123 of the inquiries, which they usually received from farmers or others. Teachers, students, farmers and others send specimens. The total number received in 1955 was 649. Approximately 200 of the inquiries concerned only one specimen. The increase in total number is due to larger numbers sent by teachers or other persons who were especially interested. From three teachers during the year we received sets ranging from 30 to 75 specimens. The interest in plant life which these teachers have aroused in their students is a valuable contribution to education.

The writer is particularly interested in the plants. The total number of species represented was 304 or about an average of one for each inquiry. We are especially interested to see which ones are most frequently sent. There were but few outstanding cases. Abundance and conspicuousness are large factors but mere chance is a main factor as is evident from the number of species received. The fact that they come from people in various locations and from people with various training and interests is an important factor.

For the period of July 1, 1921-22, quackgrass was received twice as many times as any other plant. Next in order were leafy spurge, goatsbeard, Frenchweed, buffalo bur, blue lettuce, prickly lettuce, Canada thistle and perennial sowthistle.

¹Botanist.

In 1955 the variety was much greater and with less emphasis on any one or a few species. First place was held by burning bush (*Kochia scoparia*), a relative of the pigweeds which was originally planted as an ornamental and has become a common weed. It thrives under dry conditions but, unlike Russian thistle, grows still better with more moisture. The number of burning bush specimens was proportionately less than one-third that of quackgrass in 1922.

The plant next most commonly received in 1955 was the little white prairie aster (*Aster ericoides*) but duplications received from grade school students were responsible for this. Third place was shared by crabgrass, mouse-ear chickweed and absinth. These seem directly due to the evident weedy characters of these plants.

Other species received more than five times were: white sage, little sage, gumweed, milfoil, barnyard grass, wild licorice, cinquefoil, evening primrose, toadflax, marsh elder, tall white aster and Canada goldenrod.

It is noteworthy that none of the preceding appeared in the list of most frequent species in 1922. This may be due in part to changes in actual abundance, but more probably to changes in attitude toward various weeds, to farm conditions and methods of weed control. Quackgrass and sow thistle are now well known and control measures are better established.

Absinth (*Artemisia absinthium*) is a plant of the sagebrush group. It is a native of eastern Europe and western Asia and has long been used as a source of flavoring material. Probably it was deliberately planted here originally, but it may also have been introduced accidentally. The seeds are very small but the plants become large and woody. It has been increasing for many years and occurs in pastures, idle ground, along fence rows and roadsides more than in fields.

Special interest is attached this year to mouse-ear chickweed. It is a well known lawn weed but had been found only once or twice in North Dakota. A colony grew by one of the college buildings in 1941 but was gone the next year. Many inquiries were received in 1955, most of them seeming to be from lawns seeded about three years. It spreads to form dense patches and is difficult to eradicate. Special watch will be kept to see whether it persists.

The small crabgrass was common in Fargo lawns, possibly because of the dry, hot weather. It has a sinister character because it seems to appear so suddenly. In small amounts it is easily removed by hand pulling as soon as the heads appear. Another lawn weed that has only recently received attention is creeping bellflower. It is commonly planted as an ornamental but spreads freely from the roots. Chemicals may be needed to control it but much care must be given in the use of these chemicals on lawns.

Receipt of two samples of houndstongue (*Cynoglossum*) should be mentioned. This had been found only a few times before but is

known to occur in considerable quantity in one area in Richland County. It is not a field weed but a coarse biennial with small red flowers and grows in wooded pasture areas. The burs are a nuisance and the plant should be eradicated when it appears.

Another newcomer to the list should not be regarded as a menace. Swamp ragwort (*Senecio congestus*) had been known from the borders of ponds in only a few places. In 1955 it was received from three correspondents and was collected at several other places. It is a coarse, yellow flowered plant and the small seeds are wind blown. Probably the excessively wet weather in the north central part of the state in 1954 allowed it to become established in new places. It is a native plant and is restricted to pond edges.

Poisonous plants continue to be suspected but very rarely are any cases established. Where livestock dies without apparent cause, plant poisoning is often suspected. Use of plants for human food received little attention during the year. One person wished to know if the berries of Virginia creeper could be used for jelly. On this we found no information. They are closely related to grapes and are popular with birds but so are buckthorn and tartarian honeysuckle which are not considered desirable by humans.

Canary grass, the one used in bird seed, was received three times because it had been planted for commercial production in one locality. Among common plants, leafy spurge, blue lettuce, wild barley, Russian thistle, Frenchweed, mallow, buffalo bur, wolfberry, Canada thistle, skeleton weed and goatsbeard were received only one to four times.

The barberry bush has been eradicated so far as possible but occasionally another one is found. Two specimens of Japanese barberry were received and one of the small native sumac which has flowers somewhat like those of barberry. Only a few years ago a specimen of common barberry was received, the only one in many years.

The diversity of specimens and inquiries is shown by some of the unusual cases. Two water colors of flowers came from a woman in Norway who had visited in North Dakota during the summer. One twig of arbor vitae was sent by a person who had received it in decorative material from Oregon. One pine specimen was brought by a nursery dealer who suspected that an error had been made in labeling. One spray of foreign material was questioned by a florist. Native material can usually be recognized without much difficulty but the unusual house plants often cannot be named from a single leaf.

Immature flower heads and other small objects not removed in grain cleaning are frequent. Very young heads of Canada thistle are about the most common. One specimen of cocklebur, immature and much rubbed, was received. The rounded galls caused by insects on various stems and leaves frequently cause inquiries.

We have no specialist on mushrooms at present, so these are received with reluctance. Frequently they come carefully packed (in hot weather) and are decayed and unrecognizable. It is better to allow them to dry slowly in transit. Mature and complete specimens are usually necessary for identification. The one most frequently received is the stinkhorn which comes up from decaying tree roots. It is harmless but unwelcome because of its slimy green top and odor.

Recent Publications Available

Here are reviewed recent Experiment Station bulletins available to the public. Single copies will be mailed free on request. Because of the limited quantity available and increasing publication costs, we urge you to order only those bulletins in which you have a serious interest. If you desire a copy of any of the publications listed below, write Bulletin Room, NDAC, Fargo, N. D.

- **Bulletin 389—Results of Nine Years of Crop Experiments on the North Central Agricultural Experiment Station.**

By G. N. Geiszler. This bulletin gives a history of the North Central Experiment Station and experiments conducted there since its beginning. It gives reports of trials with wheat, flax, barley, oats, rye, millet, sunflowers, corn, fertilizers, summerfallow forage crops, potatoes, orchard plantings, ornamental trees and shrubs and tells of seed increase work and distribution. It is of particular value to farmers in northwestern North Dakota.

- **Bulletin 390—Potato Price Support Programs in the Red River Valley.**

By Perry V. Hemphill. This is an examination of the effect of recent potato price support programs upon the potato industry in the Red River Valley in North Dakota and Minnesota. It reviews government programs and gives producers' attitudes toward price supports.

- **Bulletin 391—Economic Aspects of Hog Production in North Dakota.**

By Cecil B. Haver. Here is an economic study of the raising of hogs in North Dakota. It gives recommendations of value to every hog raiser.

- **Bulletin 392—Meeting the Impact of Crop—Yield Risks in Great Plains Farming.**

By Philip J. Thair. This bulletin is a study of the variability and uncertainty of farm income in North Dakota. All-risk crop insurance is studied in relation to farmers' need for stability and stabilizing devices.

- **Bulletin 393—North Dakota's Dairy Marketing Problems in Historical Perspective.**

By L. A. Fourt and G. A. Kristjanson. Tells of the importance of dairying in North Dakota, the development of the dairy industry in North Dakota, changing economic relations in the dairy industry, and the present status and future of the dairy industry in North Dakota. It is of value to anyone connected with dairying.

- **Bulletin 394—Improvement of North Dakota Creamery Butter.**

By C. Jensen, Lyle D. Beck and Emily Plath. Describes a project done at the dairy department of the North Dakota Agricultural College to improve North Dakota creamery butter. The study covers nine years. The bulletin is of value to anyone in the dairy industry as well as farmers who sell cream.

- **Bulletin 395—Mineral Rights and Oil Development in Williams County North Dakota.**

By Stanley W. Voelker. The author tells of oil development in North Dakota with special emphasis on various legal aspects as they affect landowners.