

# HAIL INSURANCE for your farm?

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## HAIL IS A HAZARD

Hail is an ever present hazard to farmers in North Dakota. Every farmer must decide whether he will insure all, part, or none of the risk of hail damage.

## MANAGEMENT CONSIDERATIONS

Crop losses from hail is one risk that can be reduced through insurance. The farmer has three choices. He can:

1. substitute the relatively small but known premium cost of a commercial insurance program for the possibility of a greater but uncertain loss from hail damage;
2. maintain a cash reserve to meet unexpected losses; or
3. locate the fields over a wide geographic area to reduce the chance of total loss.

## WEIGHING ALTERNATIVES

Premium costs of commercial insurance should be compared to the costs of other alternatives. A cash reserve or scattering fields will provide insurance against hail loss. However, a reserve has the disadvantage of idling capital that could more profitably be used for operating or expanding the farm business. The third method, scattering fields, makes it difficult to effectively use optimum size machines and involves the cost and time of moving machinery from one field to the next. It may also be difficult to obtain land spread over a wide area.

An old management rule of thumb is "insure any probable loss-risk that you can't readily absorb, and include this cost with the other costs of production." The need for commercial insurance decreases as the ability to stand loss increases.

## LEVEL OF COVERAGE NEEDED

The level of coverage should be considered in light of the income level required to assure survival of the farm unit for

the next cropping season. An established farmer might consider coverage equal to his direct costs as being adequate. Beginning farmers or others with substantial debt might consider coverage equal to total costs of production, including a minimum for family living needs.

## RATES VARY BY AREA

Patterns concerning the frequency of hail loss have been established across the state. This historical information is used to periodically compute hail insurance rates for every township. The greater the probability of hail in a township, the higher the base rate for that township.

The current premium rates per \$100 coverage established for every township in North Dakota are shown on the North Dakota Hail Rate Map.

## RATES VARY BY CROP CLASS

Crops vary in their resistance to hail damage and their ability to recover from this damage. These differences are reflected in the premium rates for different classes of crops. The major crop classes pertaining to North Dakota and the major crops included in each class are:

Class A - wheat, oats, flax and corn.

The township rates for Class A crops are the rates shown on the rate map.

Class B - potatoes and sugar beets.

Rates for Class B crops are about 80 per cent of the Class A rate.

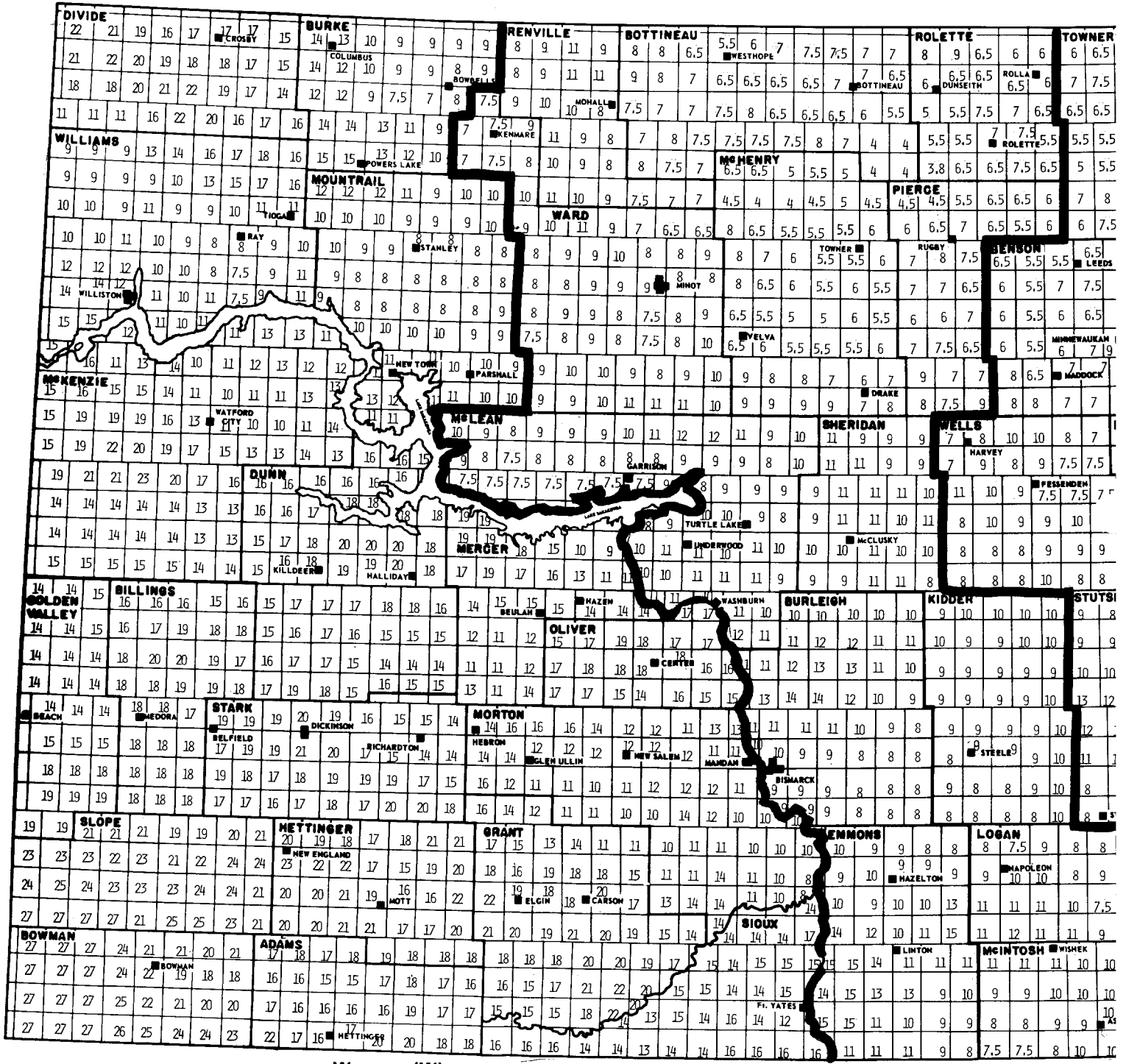
Class C - barley, rye and buckwheat.

Rates for Class C crops are about 130 per cent of the Class A rate.

Class S - soybeans.

The rate for soybeans is about 180 per cent of the Class A rate.

## NORTH DAKOTA HAIL RATE MAP\*



### Western (W)

### West Central (WC)

\*Courtesy Dawson Insurance Company, Fargo, North Dakota

## TO FIGURE PREMIUM COSTS PER ACRE

To estimate the per acre cost of hail insurance, you need to know:

1. The Class A rate for your township from the rate map.
2. The adjustment factor for each crop needed to adjust the Class A rate for other classes of crops (Table 1).

TABLE 1. CROP CLASS ADJUSTMENT FACTORS AND TOTAL CROP COSTS PER ACRE FOR SELECTED CROPS, BY AREA

Crop	Crop Class Adjustment Factor	Total Crop Costs by State Area <sup>a</sup>			
		RRV	EC	WC	W
		(dollars/acre)			
Wheat	1.0	\$42	\$32	\$38 <sup>b</sup>	\$35 <sup>b</sup>
Flax	1.0	27	33	21	26
Corn	1.0	55	—	—	—
Oats	1.0	40	32	27	33 <sup>b</sup>
Potatoes	0.8	190	—	—	—
Sugar Beets	0.8	142	—	—	—
Barley	1.3	41	34	38 <sup>b</sup>	35 <sup>b</sup>
Rye	1.3	33	28	20	20
Soybeans	1.8	40	—	—	—

a - Area divisions are shown at the bottom of the Hail Rate Map.

b - Summerfallow cropping practices.

Source: Current crop cost and return data, Dept. of Agricultural Economics and Cooperative Extension Service, NDSU.

3. The desired level of coverage. As an aid to determining the level of insurance coverage desired, Table 1 shows estimated total costs involved in producing selected crops in four general areas of the state. Total costs include a charge for land equal to the average net return that North Dakota landlords receive. This amounts to approximately 7 per cent of the current market value of cropland. Farmers owning their land may wish to exclude this cost when determining desired levels of coverage. Total costs do not include labor.

## RATE PER ACRE FORMULA

Computing the premium rate per acre now becomes a matter of simple arithmetic.

**EXAMPLE:** Consider a Burleigh county farm located in Township 141, Range 77 where the operator desires "total cost" coverage on his wheat, barley and rye. The base rate from the rate map is \$12 per \$100 coverage. The premium rate per acre for each crop can be computed using the formula shown in the following table:

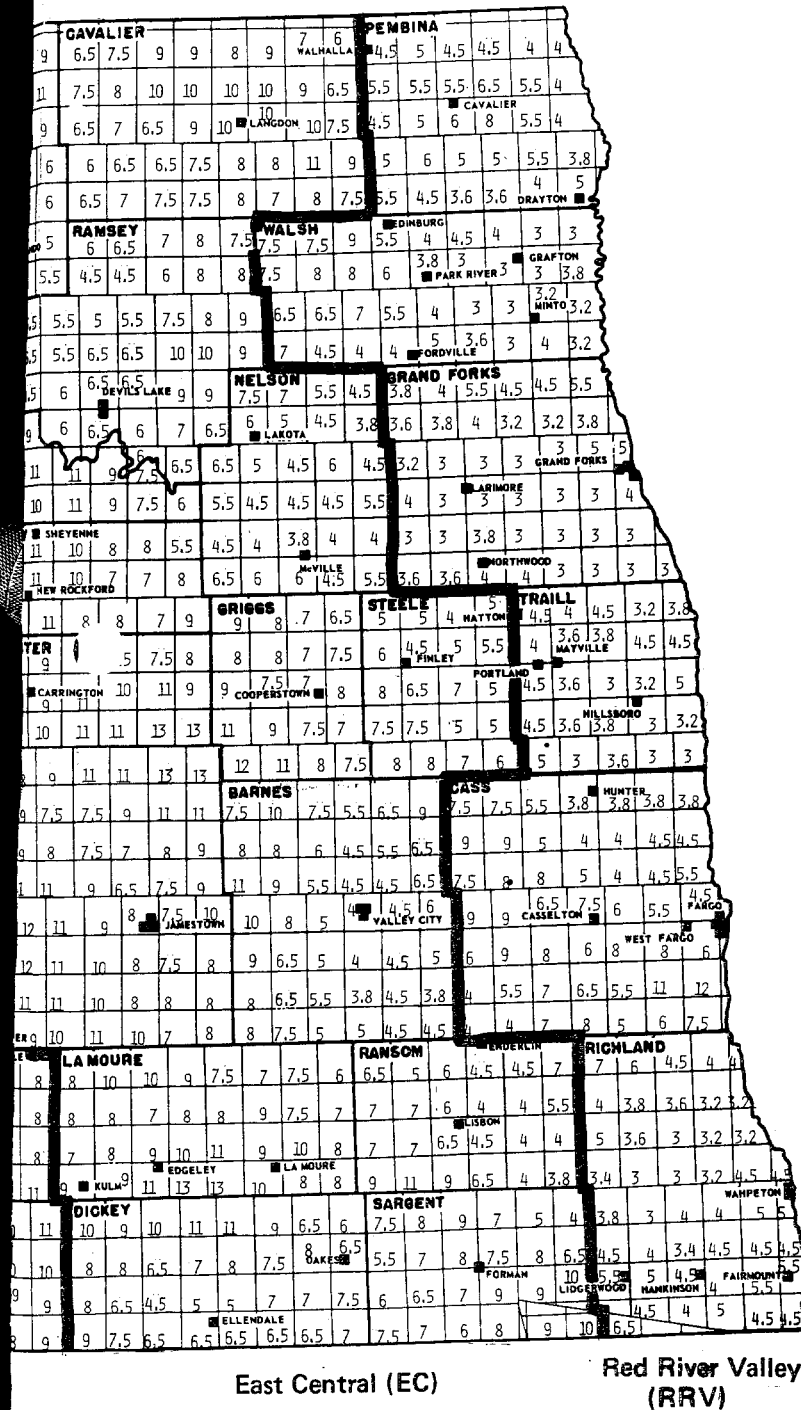


TABLE 2. PREMIUM RATE PER ACRE FORMULA, BURLEIGH COUNTY HYPOTHETICAL FARM

Crop:	Base Rate <sup>a</sup>	X	Adjustment Factor <sup>b</sup>	X	Desired Coverage Per Acre <sup>c</sup>	=	Premium Rate/Acre
Wheat	\$12	times	1.0	times	\$38/\$100	=	\$4.56
Barley	12	times	1.3	times	38/ 100	=	5.93
Rye	12	times	1.3	times	20/ 100	=	3.12

a - from hail map.

b - from Table 1.

c - the "total cost" level of coverage is obtained from Table 1. This amount is divided by \$100 because the base rate is given in terms of dollar premium cost per \$100 of coverage.

## CONSIDER THE TOTAL FARM

Is your coverage adequate in case of a total farm loss? What would the approximate total premium amount be for the farm? These are questions each farmer should ask himself when planning his hail insurance program.

Table 3 illustrates a method of obtaining this information for a hypothetical farm located in Burleigh county with a \$12 per \$100 coverage base rate. The desired coverage for each crop is assumed to be the same as illustrated in the previous example. Table 3 indicates that over \$16,500 of coverage can be obtained at a total premium cost of slightly over \$2,100.

TABLE 3. PREMIUM COST PER CROP AND TOTAL FARM HAIL INSURANCE COVERAGE FOR HYPOTHETICAL BURLEIGH COUNTY FARM

Crop	Acres	Premium Per Acre <sup>a</sup>	Premium Cost Per Crop <sup>b</sup>	Insurance Coverage <sup>c</sup>
Wheat	330	\$4.56	\$1,505	\$12,540
Barley	90	5.93	534	3,420
Rye	30	3.12	94	600
TOTAL FARM.....			\$2,133	\$16,560

a - calculated in the previous example.

b - premium per acre TIMES acres planted.

c - desired coverage per acre TIMES acres planted.

## SPECIAL PROVISIONS

Crop-Hail insurance policies usually contain a number of special provisions. Among the more important are:

**Notice of Loss** - Any claim for loss must be reported by the insured within 120 hours after the loss occurs.

**Extra Harvest Allowance** - If the insured loss exceeds 70 per cent, an additional payment not to exceed one-half of the per cent of loss that is over 70 per cent shall be paid to the insured.

**Premium Discount** - Five-season policies are available under which a premium discount will be given for each growing season during which no report of loss is made. The discount is applied to the premium due for the crop season following the season in which the discount is earned and is determined as follows:

5 per cent discount - No loss or report of loss for one year.

10 per cent discount - No loss or report of loss for two consecutive years.

15 per cent discount - No loss or report of loss for three or more consecutive years.

## OTHER CONSIDERATIONS

Various optional provisions are available, such as a straight 10 per cent deductible policy and a 10 per cent deductible policy with an increasing payment provision whenever the determined percentage of loss exceeds 70 per cent. Optional disappearing deductible policies are also available at reduced rates. For details of these options, appropriate premium rates, and terms under which a given policy can be cancelled, the individual farmer should check with an insurance agent.

Also, the Federal Crop Insurance Corporation offers an all-risk wheat insurance program in all counties along with insurance on crops other than wheat in a number of other counties.