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WINTER BARLEY

a feed

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insurance

crop for

Southern

Illinois

Circular 782

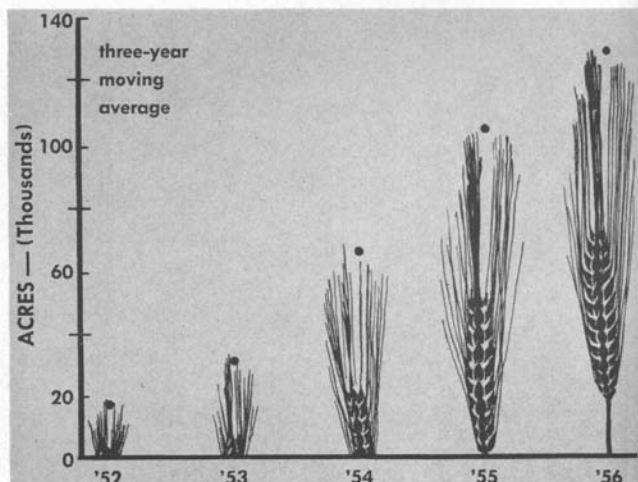
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS

WINTER BARLEY acreage in Illinois was over seven times as great in 1956 as in 1952. (See graph.) While some of this increase resulted from acreage allotments for corn and wheat, part of it was due to characteristics of winter barley which have earned the crop its rising popularity among southern Illinois farmers.

Merits of Winter Barley

1. For feed insurance. A bin full of barley is mighty good insurance to have when the corn leaves start rolling in August and there is not a cloud in the sky. In areas where corn yields well, it will produce more than barley. On drouthy soils, however, winter barley is less likely to be hurt by drouth than corn because it grows during the time of year when water is generally available. Remember, barley harvested in June is feed insurance against low corn yields or complete corn failures as occurred in Illinois drouth areas in 1954. *Winter barley is economical insurance, too, because it costs 30 percent less to produce an acre of barley than an acre of corn.*

2. Excellent grain for feeding. All classes of livestock do well on barley. In Canada, northern Europe, and even parts of our own country, spring barley is the primary feed grain. F. B. Morrison's



textbook "Feeds and Feeding" compares barley with oats and corn as follows:

	Barley <i>perct.</i>	Corn <i>perct.</i>	Oats <i>perct.</i>
Protein.....	11.8	12.0	9.4
Digestibility of crude protein....	79.0	78.0	76.0
Total digestible nutrients in the grain.....	78.7	71.5	80.6

For growing animals, barley is comparable to corn in feed value, but generally rates lower in a fattening ration. For best results barley should be cracked before feeding, since the kernels are so hard that some will not be properly digested.

3. Excellent fall and early spring pasture. Winter barley is one of our fastest-growing cereals. When seeded in mid-September, it will provide considerable high-quality fall pasturage.

4. Good companion crop for establishing legumes in grasses. Because this grain matures from one to two weeks ahead of other winter grains, it favors an interseeded hay or pasture crop. Clover stands have often been observed to be better in winter barley than in winter wheat or winter oats.

5. Good crop for soil erosion control. Winter barley provides excellent erosion control because of its vigorous top and root growth during the fall. It can therefore be grown on sloping land where row crops often lead to serious erosion.

6. Fits in rotations well. In regular rotations, winter barley can follow soybeans in southern Illinois if an early soybean variety is planted. Winter barley also offers the possibility of using short, intensive rotations (growing two crops the same year on the same field). It can often be harvested in mid-June in extreme southern Illinois and then can be followed with another cash or feed crop. Early-maturing soybeans for either hay or beans and sudangrass for pasture are two crops that have been seeded after winter barley. In some areas, grain sorghums could be seeded at this date. Where such short rotations are used, particular attention must be paid to fertility practices.

Steps in the Production of Winter Barley

1. **Choose an adapted variety.** This is the first and most important step in obtaining high barley yields. Not all varieties being grown in the southern states will consistently survive the winters in Illinois. Some of the most winter-hardy varieties available to growers in the past were weak-strawed. It has only been in recent years that plant breeders have developed varieties that have winter-hardiness plus good standability. This has enabled the crop to advance as far north in the state as Mattoon and produce yields of 50 to 70 bushels an acre.

The following three varieties have been outstanding performers in recent trials: Hudson, Kenbar, and Mo. B-475. Hudson and Kenbar have the best straw strength. Kenbar is the least winter-hardy and should be grown only in extreme southern Illinois. Mo. B-475 is the most recently released variety, grows the tallest, and has the highest yield record in variety trials at Brownstown and Carbondale. Certified seed of Mo. B-475 was made available in limited quantities in 1957.

2. **Sow barley at the proper time (two weeks ahead of wheat).** Barley is a little less winter-hardy than wheat and should be sown earlier to



Winter barley trial in central Illinois. Left — Good winter-hardiness and standability. Center — Good winter-hardiness but weak strawed. Right — Short weeds take over from variety completely winter-killed.

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give it time to become well established before winter.

Hessian fly, while not as much of a problem with barley as with winter wheat, can be held in check by sowing barley at the proper time. In date-of-seeding trials at Brownstown and Newton, barley seeded September 1, 1956, showed a high Hessian fly population, whereas barley seeded about the proper time (September 21) showed very little Hessian fly infestation.

3. Clean and treat the seed before planting. These two practices will insure better stands and more vigorous plants. The two chemicals most widely used to treat barley seed are Ceresan M and Panogen. Be sure to follow directions on the label.

4. Sow barley with a drill and plant at the rate of 2 bushels of seed an acre.

5. Prepare a good seedbed. If winter barley follows another small grain or a hay crop, plow the land in July and then use a disk and harrow at planting time. If the crop follows soybeans, a good disking will generally prepare an adequate seedbed.

6. Be sure the fertility level is high. Barley is not a poor-land crop. Like wheat, it responds especially well to soluble phosphates. Use care in adding nitrogen because lodging is likely to occur if large amounts of nitrogen are used. If the crop is to be pastured, this danger is lessened. Do not plant barley on land that tends to be low and wet, as this crop cannot stand wet feet.

7. Control insects. Watch out for army worms and chinch bugs. Both prefer barley to almost any other crop. Several control chemicals can be used if the insects are discovered early.

These key production practices, in brief, assure high yields of winter barley.

1. Choose a winter-hardy variety.
2. Sow barley two weeks earlier than wheat.
3. Clean and treat the seed before planting.
4. Prepare a good seedbed.
5. Have good fertility.



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