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Agronomy Guide

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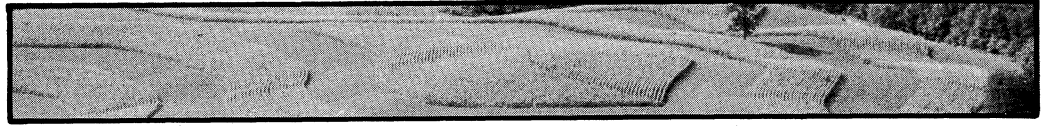
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AGRONOMY GUIDE



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AY-140

SMALL GRAINS FOR FORAGE

H. N. Wheaton and L. H. Smith, Extension Agronomists

Any small grain may be utilized as forage. Winter wheat and rye are adapted to Indiana climate and produce excellent forage in the fall and spring. Winter oats and barley may be used in the southern one-fourth of the state, but are subject to winter kill.

Wheat top forage cereal

When all factors are considered, winter wheat is the best producer of forage of the four winter cereals. Wheat is better adapted to heavy soils than barley or oats and is more resistant to current diseases and more winter hardy. If seedings are made late in the fall, rye has more winter hardiness than wheat, oats and barley.

Wheat will produce almost as much forage as rye and is higher in digestible protein. Winter oats has a higher protein content but total tonnage is much less than the other small grains and its winter survival is unpredictable. The total production of barley is also less than wheat but the protein level is about the same. If the cereals are grazed when the top growth is 30 inches or less, the protein level will range from 16 to 21 percent.

Yields depend upon the fertility program, but with proper management and average rainfall 3 to 4 tons of hay equivalent is possible from the fall and spring harvests.

Fertilization and varieties

Apply one-third more phosphorus and potassium for forage than if the cereal is to be used for grain. Twenty-five to 30 pounds of nitrogen should be used at seeding time with an additional 50 to 60 pounds applied in the winter.

Any variety of small grain seeded at normal seeding time may be used for pasture. However, to obtain maximum fall forage from wheat, seed 3 to 4 weeks prior to the Hessian fly-free date. If wheat is seeded before the fly-free date, select only varieties that are resistant to the current races of Hessian fly.

Normal seeding rates of wheat are recommended regardless of the time of seeding. Always use weed-free seed high in germination.

Grazing management

Pasture wheat in the fall when the leaves are about 6 to 10 inches high. Grazing may begin in the spring as soon as soil conditions permit. Wheat grows extremely fast in the spring and livestock numbers should be high during the latter part of April and early May. If wheat is to be harvested for hay, cut when it is in the flowering stage. It is better to

cut too early rather than too late, because the protein level and digestibility falls quickly after wheat flowers and matures into the milk stage.

Establishment of new grass and legume seedings

If wheat is seeded early in the fall and soil moisture is adequate, sow alfalfa, ladino and timothy, brome, fescue or orchard-grass on top of the wheat. Wait until late winter to seed red clover or lespedeza. If soil moisture is lacking, proceed with wheat seeding but wait until February to seed the grasses and legumes.

Fall grazing will not harm the new grass and legume seedings unless trampled during wet weather. Removal of spring growth by grazing or for hay or silage will allow the new seedlings to produce forage much quicker than if the wheat is harvested for grain. Two additional harvests, one in early July and another in August can be expected the first year.

If weather conditions are normal, liberally fertilized wheat and legumes with this system will produce 4 to 6 tons of hay equivalent.

Historic Document

11/66