K-STATE Kansas State University Research and Extension

FORAGE FACTS

Publication Series

SMALL GRAIN CEREALS AS FORAGE: CROP SELECTION

INTRODUCTION

Small grain cereals can be a valuable forage to complement summer annuals and native grass pastures, and a good primary forage when backgrounding beef cattle. For fall and spring pasture, producers can use winter wheat, rye, barley and triticale. These crops, as well as spring oats, can produce an early summer supply of hay or silage. Animal health concerns, such as nitrate poisoning, are less likely to occur with hay and silage from small grains than with summer annual forages.

WHEAT

Wheat has good potential for pasture, silage or hay production. It is usually higher in quality than oats, rye and triticale, and can produce more forage dry matter per acre than barley. Wheat should be planted earlier and at a higher seeding rate when grown for forage instead of grain alone. Wheat streak mosaic, barley yellow dwarf mosaic and hessian fly infestations can be greater concerns for early planted wheat.

Plant height may become a more important consideration than grain yield when growing wheat for grazing, haying, or silage production. However, if wheat is to be grazed and then used for grain production, grain yield potential should be an important factor in variety selection. Select a variety with rapid emergence, good tillering and upright growth characteristics.

WINTER BARLEY

Winter barley is generally more susceptible to winterkill than wheat, especially when it has been overgrazed. Therefore, winter barley should not be grazed as short or as late into the fall as wheat. Some varieties have barbed awns which can affect palatability of hay or silage and cause mouth problems if cut after heading.

Barley grows best on fertile, well-drained soils, but is also well adapted to sandy soils. Barley yellow dwarf, leaf rust and smut can be serious problems, especially when planted early in the season.

TRITICALE

Triticale is a cross between wheat and rye and has a higher forage yield, but lower quality than wheat. For forage purposes, triticale is best suited as pasture. Triticale has large stems which make field wilting for hay or packing for silage difficult.

Although pure triticale will not contaminate adjacent wheat fields with rye, triticale seed is sometimes contaminated with rye seed. At present, little or no cash market exists for the grain, though feed value is excellent in poultry and swine diets.

RYE

Rye is the most cold tolerant and least exacting in its soil and moisture requirements of the small grain cereals. Quick fall and spring growth make rye the most productive of the small grains for pasture. Rye consistently produces more spring pasture than wheat, although it quickly becomes stemmy and unpalatable in late spring.

If rye is not allowed to head and produce seed, contamination of adjacent fields can be eliminated. After pasturing, rye should be harvested at the late boot stage for hay or silage, or destroyed with tillage or herbicides before seed production.

SPRING OATS

Spring oats must be planted in early spring, generally by April 10, when grown for hay or silage. The forage type varieties are those with high forage and grain yield potential as well as resistance to barley yellow dwarf, crown rust and stem rust. Forage type oats are generally later maturing varieties than grain type oats and are likely to fill only small, shriveled grain. In Kansas trials, forage type oats have rarely out yielded grain types in forage production.

OTHER PUBLICATIONS

Kansas Crop Planting Guide (L-818)

Small Grain Cereals for Forage (MF-1072)

Wheat Pasture in Kansas (C-713)

Wheat Pasture Grazing (Forage Fact Sheet Series)

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