



Pasture and Forage

TRICAL® Tips - Keys to Successful Pasture and Harvested Forage

Select the Proper Variety

The most important step in successfully using triticale in a forage program is to choose varieties of triticale that are well adapted for your area. There are literally hundreds of different varieties of triticale—some are for grain production while others are for forage; some are winter-hardy, while others will die out under severe winters; some are for fall planting, some for spring; some are excellent for grazing while others are poor. Varieties also differ in growth habit, forage production characteristics, adaptability, and pest tolerance. Some varieties produce more forage in the fall, while others produce more in spring. TRICAL® varieties have been developed for outstanding forage performance. Consult with your seed supplier to determine which TRICAL® variety is best for your needs.

Management Similar to Wheat Pasture

Triticale is a very close relative of common wheat, so local management practices for wheat forage provide a good starting point for management of TRICAL® forage.

Plant During the Optimum Planting Window

Planting time for triticale is similar to that for wheat, but most triticale varieties bred for forage tolerate the pests and environmental stress associated with early planting better than wheat, so are better suited than wheat for early planting. For example, in the Southern Plains and Pacific Northwest it is not unusual to plant a full-season, winter-type TRICAL® grazing triticale by mid August. In those two areas, planting in late August through early September is the most common planting time, but adapted varieties can be planted throughout the fall. The “optimum” planting date depends on crop rotation constraints and forage needs. If fall grazing is desired, an early planting date is essential—obviously, later planting greatly reduces fall growth. Spring-type varieties can be planted in the late winter or early spring, but forage production from spring planting rarely matches that from fall-planted winter types.

Use Appropriate Planting Practices

Land preparation and planting depth should be similar to that for wheat. Seeding at 80 to 120 lbs per acre with a grain drill is typical, but seeding rate can vary depending on area, dryland versus irrigated, variety, planting date, and forage program. Triticale typically has larger seed than wheat, so grain drills must be opened up wider to achieve the same seeding rate. Broadcast seeding requires 25% more seed and is a less reliable means of stand establishment. As with wheat, higher seeding rates increase fall forage production, but can lead to lodging if not grazed. TRICAL® winter triticale varieties can be successfully no-till seeded after summer crops or into declining stands of alfalfa or other forages.

Adequate Fertility is Essential

Soil fertility has a major impact on forage production. Although triticale typically yields more than wheat even if soil nitrogen is low, it has a very high nitrogen response. A typical practice for production of silage or hay harvested at flag leaf without prior grazing is at least 100 lbs. of available nitrogen, ideally as 30 to 35 lbs. in the fall and the remainder in the spring for yield and protein. Nitrogen needs are seldom met from manure alone.

Ongoing university research in the western intermountain area by Steve Orloff and Dan Drake indicates that forage yields from a combination of grazing and hay continue to increase even at a total of 240 lbs of nitrogen spread over three application dates, preplant, February, and May. Triticale's other nutrient requirements are similar to that of wheat. However, because triticale forage yields are substantially higher than wheat, nutrient needs are accordingly higher. Use soil and tissue tests to guide fertility management.

Use Proper Grazing Management

Manage cattle on triticale pasture as you would on other cereal grain pasture. Rotational grazing with back fencing provides the best results. Allow plants to become well anchored and tillered, usually about 5 to 7 weeks after germination, when leaves of most varieties are 9 to 12 inches in length. If using a full-season, TRICAL® winter-type grazing triticale, be prepared for significantly larger quantity and longer duration of forage production in the spring than from wheat. Triticale forages have a proven record of excellent safety, but routine testing for nitrates and other content is advisable just as it is for other cereal grains.

Harvested Forage

For outstanding forage quality while still achieving good yields, the optimum harvest stage is at flag leaf or boot, prior to head emergence. Total digestibility (as measured by 30 hr In Vitro True Digestibility, IVTD), and fiber digestibility (as measured by 30 hr digestible NDF, dNDF) are exceptionally high at this stage. IVTD typically ranges from 80 to 90%, while dNDF typically ranges between 65 to 75%, compared to representative averages of 73% IVTD and 43% dNDF for corn silage, and 68% and 41% for alfalfa hay. As reflected in the digestible NDF values, TRICAL® forage is an excellent source of digestible fiber that is vital for the ruminant health and productivity¹. Protein content at boot stage will vary depending on fertility, moisture, and other growing conditions, but generally will range between 14 and 19%. Boot-stage cereal forage tends to be high in nitrate and potassium. These high levels can pose problems unless the diet is properly balanced, especially for animals like dry cows that receive a high-forage diet. Consult with your crop production adviser and dairy nutritionist for optimal crop production and feeding.

For livestock for which maximum protein and digestibility are not needed, later harvest can produce significantly higher yields. Depending on variety and growing conditions, forage yield at the soft dough stage of development can be double that at boot stage, but protein can drop below 10%.

Resource Seeds Inc

¹ Note about fiber measurements: Measures such as neutral detergent fiber (NDF) and acid detergent fiber (ADF) can be misleading because some fiber is highly digestible and some is not. For TRICAL® and other small grain cereal forage, NDF and ADF do not reliably distinguish between “good” digestible fiber and the “bad” indigestible fiber, which reduces feed intake and productivity. Digestible NDF (dNDF) is a measure of the “good” digestible fiber, which is vital for ruminant health and productivity.