



Double-cropping Silage & Hay

TRICAL® TRITICALE MANAGEMENT SYSTEMS

Double Cropping Silage and Hay Applications:

Operators wishing to maximize the productivity of their acreage and those in need of grazing or additional forage production are finding this system useful. Most TRICAL® winter triticale varieties have amazing winter hardiness and much of the land used for crop production in the Inland Northwest is available in the fall and winter months for grazing or forage production.

- Triticale is a cool season crop and has rapid ground cover in the fall months.
- Plants are most winter hardy when secondary root structure is two to three inches long. This system is very useful in managing dairy waste issues. Because TRICAL® triticale products, especially TRICAL® 102, have a very large root structure, they have a unique ability to recycle nutrients into usable forage.
- After vernalization, TRICAL® triticale products break dormancy with truly phenomenal growth in the spring. In more temperate climates like the inland river valleys, TRICAL® triticale will grow almost all winter.
- Ideal rotations would follow corn silage, wheat or early sweet corn. Any crop that is harvested before a mid-October planting date works well.
- Plant TRICAL® triticale forages by mid-October, earlier if land is available. A well-prepared seedbed and good fertility are necessary to optimize production.
- TRICAL® triticale products love nitrogen! We have documented consumption of 300 plus pounds of nitrogen on dairy waste applications with no nitrate toxicity in the resulting forage crop. However nitrate levels vary among production conditions and plant growth stages so **nitrate testing is still advised** just as with other forages.
- Splitting fertilizer application between fall and early spring has provided best yields results. Timing the spring application to push the crop out of dormancy offers top results.
- When following another cereal, be sure to break the green bridge by destroying previous crop green residue and volunteer plants completely to avoid unnecessary disease pressure from rhizoctonia and take-all fungus.
- Harvest is usually at late boot forage in early May or hay in late May. Many growers have succeeded in reaching 50 tons of forage per acre in one year at 65% moisture, from a double crop combination of TRICAL® silage followed by corn silage.

Protein Levels:

- **Late Boot quality:** Triticale forages optimize their forage quality at the late boot stage of development. Crude protein is commonly 18-22% and invitro total digestibility is usually 85% or better.
- **Milk stage quality:** At the milk stage of development, crude protein will fall to 12-14% and undigestible fiber levels will increase.
- **Soft Dough Stage:** At the soft dough stage, energy levels actually increase slightly as grain fill begins and proteins at this stage are generally 8-10%. Fiber digestibility falls rapidly as the plant changes from a vegetative stage to a reproductive stage in its development.

Yield - Dry matter yields double from late boot harvest to soft dough stage.

Silage Quality Tips: Late boot forage should be wilted to 65% moisture. A quality liquid inoculant should be applied to prevent the formation of clostridia, yeast and mold that can cause health issues with the forage. Inoculants cannot improve forage quality but they can preserve a quality product. This is accomplished by lowering pH and the temperature of the forage. Most inoculants have more than one lactic acid forming bacteria and enzymes that aid the fermentation process which ultimately aids digestion.

Feed Quality Tips: Feedback from dairies and feeders has indicated herd health benefits while feeding triticale forage. The more digestible fiber of TRICAL triticale means less need for cereal grains thereby reducing the risk of acidosis and increasing dry matter intake. Animal health is improved and also productivity and longevity.