



Ag Health News

LABORATORIES

Time Does Matter!

Benefits to Harvesting Triticale Earlier in the Growing Season

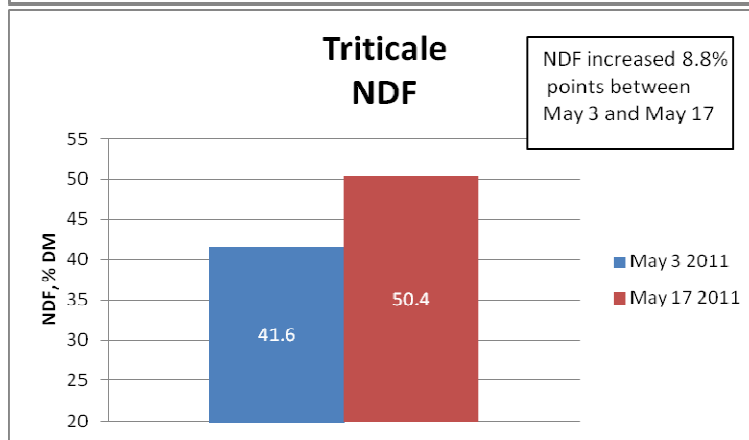
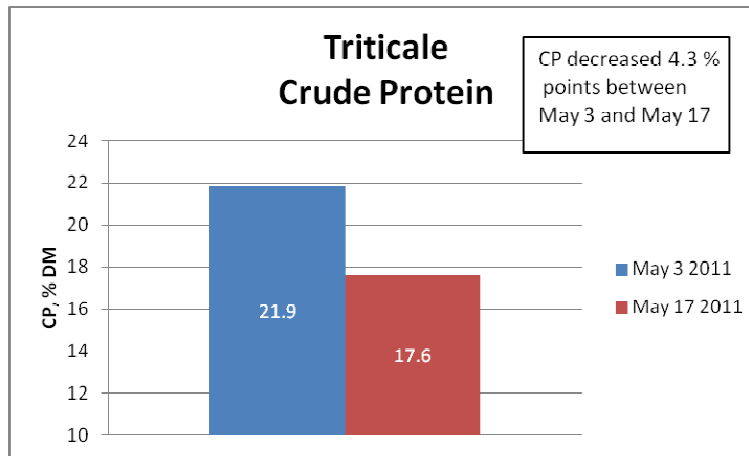
Benefits of Planting Corn earlier in the Spring

The growing season is starting to get underway. This translates into a lot of activity with preparing land and planting of crops. It also indicates that some crops, such as triticale, will be ready to harvest later this spring. There are many factors that affect forage quality, but stage of maturity at harvest will have a significant impact on nutritional value of triticale harvested this spring.

The effect of stage of maturity on triticale nutritional quality was evident last year with samples that were submitted to Ag Health Labs. Some farmers were able to get triticale harvested prior to a 2 week weather delay.

The quality difference between triticale harvested before and after the rain event was substantial.

The graphs indicate how forage quality declined over a 2 week period of time. Crude protein (CP) declined by ~4 percentage units, NDF increased by ~9 percentage units, and relative feed value (RFV) decreased by 33 percentage units. The reduction in nutritional value can potentially translate into slower growth rates in growing cattle, or having to supplement additional nutrients through other feed sources. Both of these scenarios come at a financial cost to the producer. In a time of high feed prices, it would seem



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Notice: Feed Lab Prices have changed:

Feed Panel: \$37.50

Mineral Panel \$28.00

Please contact us with any questions regarding these changes

Don't forget about getting your feed samples tested



Contact Info:

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New BioPRYN

Test Cows Earlier:

28 days bred

73 days post-calving



Contacts:

Lynn VanWieringen, PhD

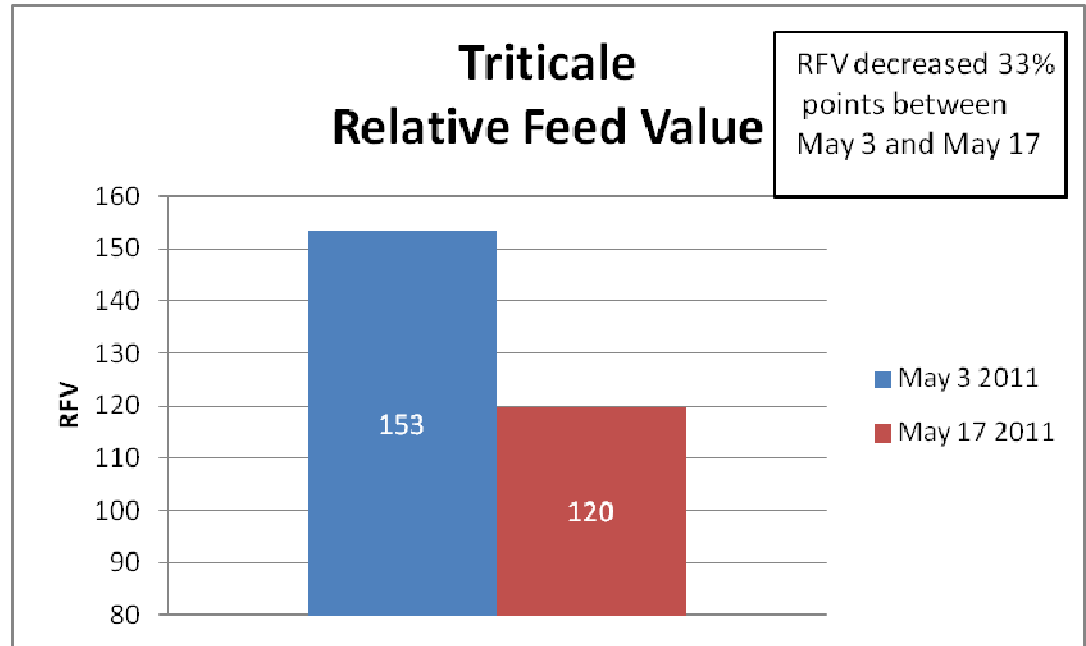
Fred Muller, DVM

Crystal Maiden

important to maximize forage quality of the forages that are already planted versus harvesting an average quality feed and potentially supplementing other feed sources to meet the nutritional demands of the animal.

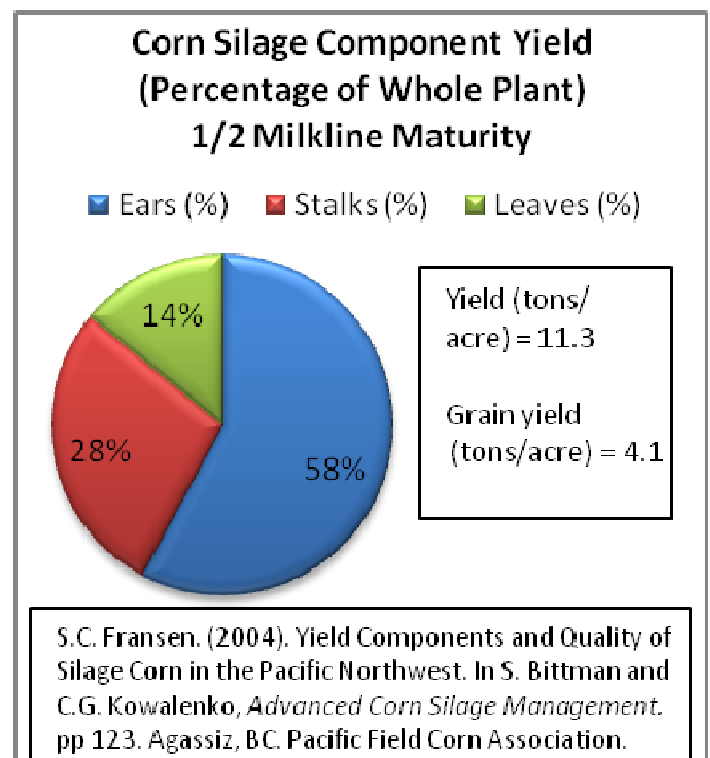
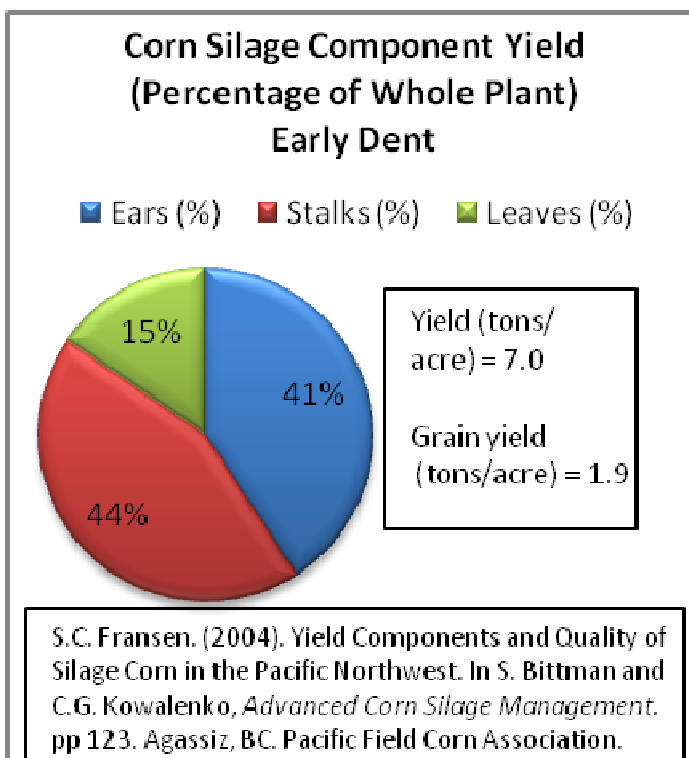
Another benefit of harvesting triticale earlier is the land that triticale was grown on can be prepared and planted into another crop at an earlier date in the growing season. Many of the acres that have triticale planted this spring will get seeded into corn after the triticale is harvested. **If it is possible to get the corn crop planted 2 weeks earlier in the spring it will translate into more mature corn earlier in the fall.** The

benefits of planting corn earlier in the spring include; 1) There is a longer growing season for the corn plant to mature, therefore it has the potential to reach optimum forage quality, 2) The corn can be harvested earlier in the fall which will reduce the risk of adverse weather effects on harvesting. Last year there was a cold wet spring which delayed triticale harvest for many producers, delayed planting of corn, and resulted in corn being harvested well into November.

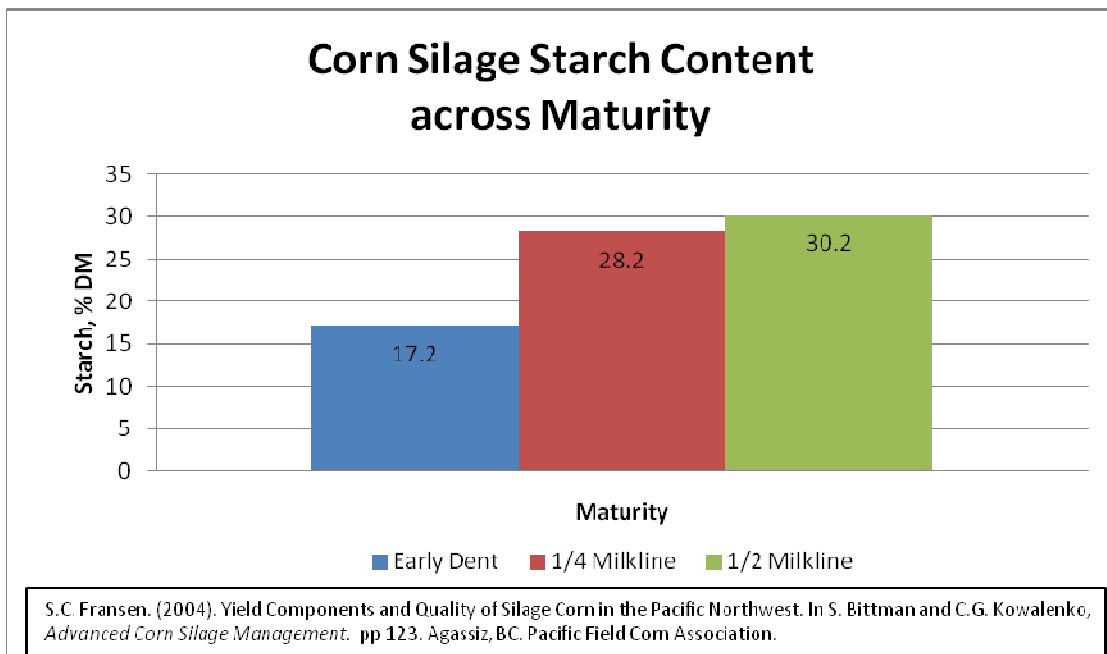


Corn Plant Maturity

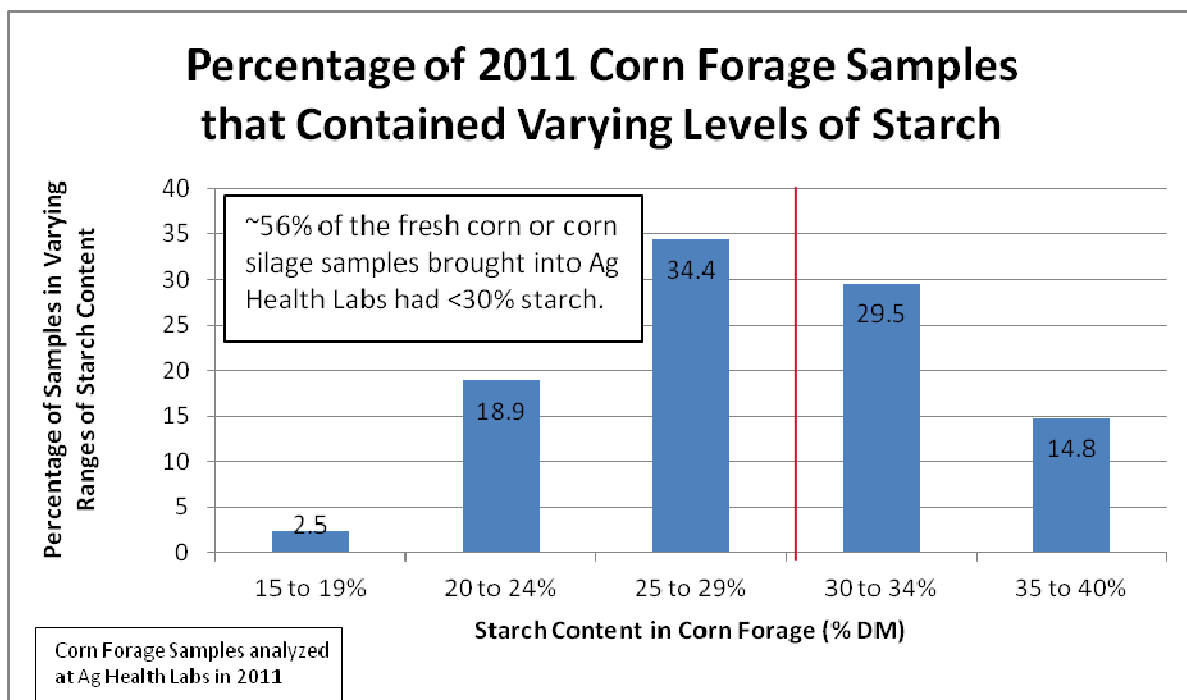
Corn silage yield is the sum of 1) ear, 2) stalk, and 3) leaf yield components. As a corn plant matures, the percentage of the whole corn plant that is 'ear' increases and the percentage of the whole corn plant that is 'stalk' decreases. This is evident by watching a corn plant grow and observing that the ears of the corn plant do not start to accumulate much mass until after pollination.



Starch is present in the ear of a corn plant. Therefore, it is the last nutrient to accumulate in substantial volume. Starch is an important energy source for lactating dairy cattle. Therefore, it is beneficial, from a nutritional standpoint, to let the corn plants mature and accumulate starch content prior to harvesting. The following graph demonstrates that starch content increases as the maturity of whole plant corn silage increases. Starch content can reach into the 40% range as the corn plant reaches physiological maturity (also referred to as black layer or blackline). It is possible to successfully feed corn silage that is physiologically mature to lactating dairy cattle, but precautions should be taken to ensure that corn kernels in the corn silage have been mechanically processed and the corn silage has went through the complete fermentation process.



It is also important to plant corn as early in the spring as possible (once the risk of frost is low and the temperature in the soil has reached an acceptable level for planting). There is an optimal time frame to maximize corn growth and the ability to mature to a stage that will maximize nutrient quantity and/or quality. Delaying planting of corn in the spring beyond the optimal window of time will reduce yield, maturity of the corn plant at harvest, and ultimately starch content in whole plant corn silage.



If the potential exists to harvest triticale early in the growing season this year, don't let it pass. There are multiple benefits to optimizing nutritional quality of triticale. Some benefits include; potentially improving animal performance, reducing the need to purchase higher quality feed due to harvesting lower quality triticale, potentially lowering feed costs, increased flexibility for feeding triticale to a range of cattle at different stages of growth, gestation, and/or lactation. Earlier triticale harvest also allows earlier reseeding of the land into corn, which allows for higher starch levels in corn silage, reducing the need to purchase high priced grains or allowing for increasing milk production, and increasing income over feed costs.

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The “New” BioPRYN

In March we began using a new BioPRYN test kit developed by BioTracking, Inc. The new test allows cows to be checked for pregnancy at 73 days post-calving rather than 90 days. BioTracking also validated the test will detect pregnancy at 28 days bred, rather than the previous 30 days. If you would like to check cows earlier in milk or earlier in gestation, please make adjustments to your vet check list, your cows eligible to bleed and test.

Happy pregnancy testing!