

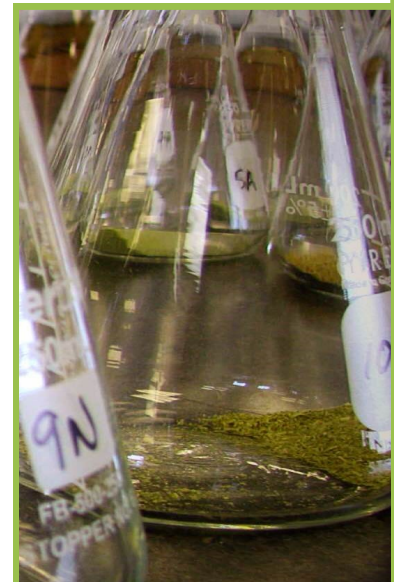


Tips for Ensiling Triticale

HARVEST TIME

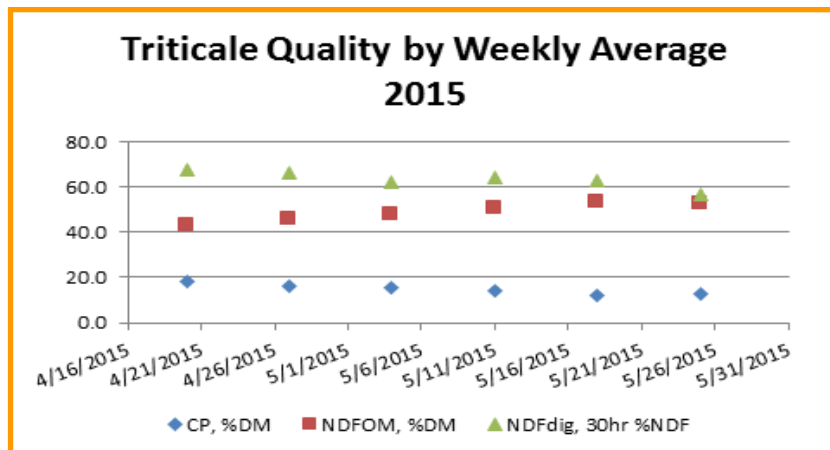
We are starting to see the first fresh triticale samples at the lab. Each year there is a wide range of quality in forages that arrive at the lab for nutritional analysis. There is very little that can be done after the forage is harvested and ensiled. The key to maximizing the quality of the forage that is harvested are the decisions that are made before and during harvest. As harvest begins, we wanted to remind you of some of the nutritional information about triticale forage.

1. As triticale matures in the field (this is the same for grass, alfalfa, and other legumes), the nutritional value declines. The goal is to find the optimal time when the nutritional quality will still be good and will meet the needs of the animals being fed this forage while maintaining decent yield
 - a. Yield will continue to increase as the plant matures in the field, but there is a point where the nutritional quality declines and offsets the benefits of increased yield.
 - b. Some of the nutritional indicators of quality are crude protein (CP), fiber (NDF_{OM}), fiber digestibility 30 hour (NDF digestibility, (NDFD), and a ranking tool, referred to as DOMI (digestible organic matter index). See Figures 1 and 2 below that show the nutrient value of fresh triticale samples analyzed at Ag Health Labs in 2015.
 - c. Crude Protein (CP), NDF_{OM}, and 30 hour NDF digestibility are all indicators of forage quality. Crude protein and NDF digestibility tend to be higher at the beginning of harvest and decline as the plant matures. Fiber content or NDF_{OM} tend to increase as the plant matures. As the amount of fiber in the plant increases, the digestibility of the fiber tends to decrease.



TESTING SERVICES

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Digestible Organic Matter Index (DOMI) was developed by Ralph Ward at Cumberland Valley Analytical Services (CVAS) as an index to rank forages based on quality. Relative Feed Value (RFV) has been the primary index for ranking forages even though it has been recognized as having limitations. Therefore, Ag Health Labs has been calculating and reporting DOMI values on all grass, legume, and small grain forages since 2013 for clients to use in assessing and ranking forage quality.

Digestible Organic Matter Index (DOMI) is similar to RFV in that it can't be used across forage type. Alfalfa and triticale forages can't be ranked together. However, DOMI can be used to rank quality within triticale forages.

- 1) DOMI estimates the pounds of digestible organic matter in a ton of feed.
- 2) For wet forages, such as fresh triticale, DOMI is reported on a 90% DM basis (or hay equivalent basis) to compare differences among fresh triticale.
- 3) DOMI corrects for ash content and estimates the amount of indigestible NDF present in the forage (which the RFV equation does not account for).

Factors that effect DOMI:

High ash = Lower DOMI

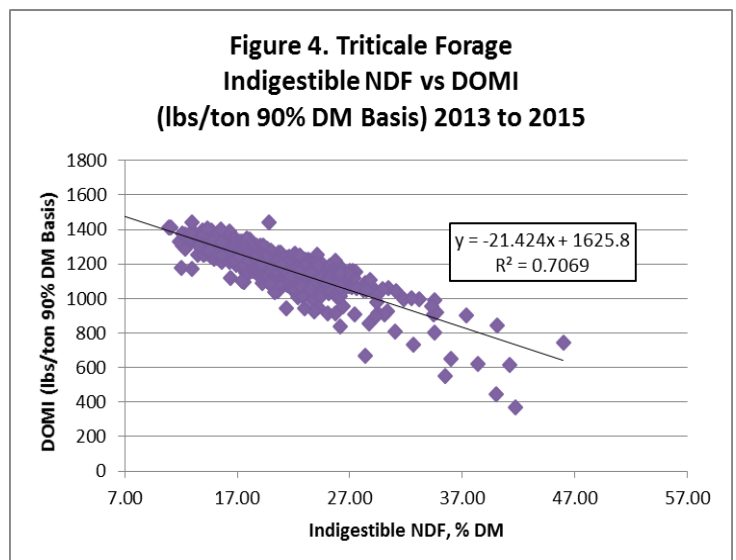
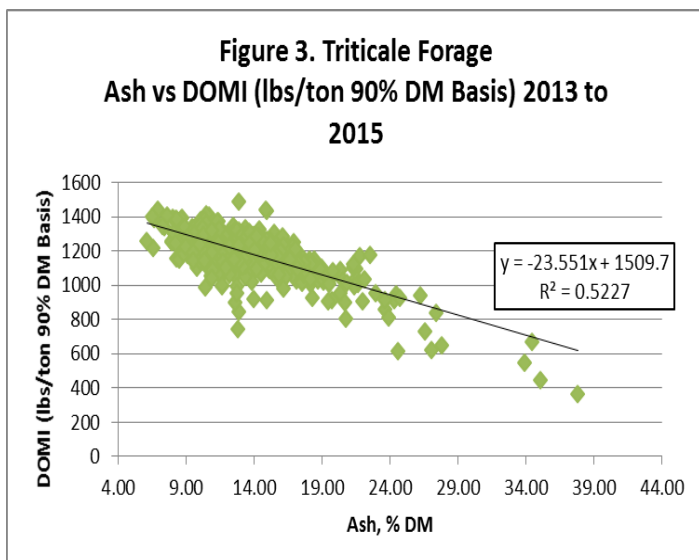
High NDF concentration (% DM) = Lower DOMI

Lower NDF digestibility = Lower DOMI

Figure 2 ranks fresh triticale samples by week of harvest. On average, during the week of April 20, 2015, the DOMI (90% DM basis) was 1298. Over a month later, on the week of May 25, 2015, the DOMI (90% DM Basis) was 1184. Triticale quality guidelines (Table 1) have been put together based on the triticale forages received at Ag Health Labs over the past 3 years. These guidelines were based primarily on data from triticale forage in Eastern Washington, and should be used cautiously in other areas that have differing climatic and soil conditions. The DOMI value in triticale forages is strongly influenced by the ash concentration and the amount of indigestible NDF present in the forage as demonstrated in Figures 3 and 4. On average, the greater the DOMI the higher the CP and 30 hour NDF digestibility, and lower NDF, NDF_{OM}, and ash concentrations.

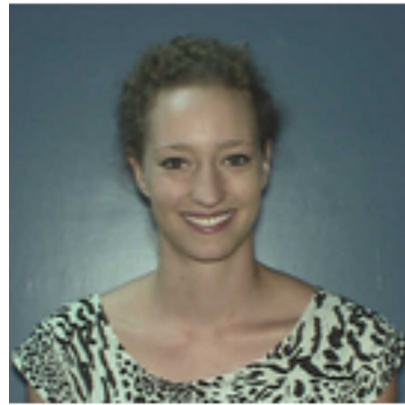
Table 1. Triticale Forage Guidelines

	DOMI lbs/ton, 90% DM	CP, % DM	ADF, % DM	NDF, %DM	NDF _{OM} , % DM	RFV	Ash, % DM	NDFd 30 hr, % NDF
Supreme	>1250	>16	<33	<50	<48	>120	<12	>64
Premium	1201-1250	16	33-35	50-52	48-49	110-120	12-13	62-64
Good	1151-1200	15	36-37	53-54	50	105-109	14	60-61
Fair	1101-1150	14	38-39	55-56	51	95-104	15-16	57-59
Utility	<1100	<14	>39	>56	>52	<95	>16	<57



WELCOME OUR NEWEST MEMBER

Kristyn Mensionides is heading up the Ag Health Laboratories marketing efforts. You may see her at agricultural functions promoting the lab. Please let her know if you have any questions about what we offer at the lab, or if you have any concerns. We appreciate your feedback!



MANURE ANALYSIS-QUICKER TURNAROUND TIME

Prices have changed:

- Standard manure package: \$66.50/sample
Solids, Total Nitrogen, Ammonium Nitrogen, Phosphorus, and Potassium
- Individual Analyses of any of the following: \$20.82/sample
NH₄-N, NO₃-N, P, K, Ca, Mg, S, B, Zn, Mn, Cu, Fe, Solids, pH, Salts, or ash

Note:

The majority of the time, manure results will be reported in 2-3 business days if samples are received at Ag Health Labs by 11 am. This is not a guaranteed turnaround time; however, we will do our very best to get the results back to you as soon as possible.

If there is an emergency for a sample or set of samples that need quick turnaround time, please let the lab know and we will flag those samples.

Also, during the months of June and July the turnaround time, ***on manure samples only***, may be somewhat longer than the 2 to 3 days during the remainder of the year because of high sample volume.