



SPRING Triticale

FOR SWATH GRAZING



1 Protein, energy, calcium, and phosphorous content

WCFA has been collecting samples from swath grazing sites since 2009, Table 1 represents a few of those samples, and the information can be used as a benchmark. Crude protein, energy, fibre, calcium, and phosphorus, etc. will vary from soil fertility (natural, applied, and nutrient cycling from manure and urine), year to year growing conditions, maturity level plants are harvested, weathering in swaths, your feed sampling accuracy, and wet chemistry versus Near Infrared (NIR) analysis mineral accuracy. Depending on feed waste (mainly stems) and limitations to animal intake, animal nutrient intake varies beyond feed test result. It is crucial to make sure feed meets animal crude protein needs.

Allowing crops to mature for swath grazing to gain higher yields creates more mature grain and lower quality straw. This increases concerns of grain overload and

acidosis. Animals need to be very carefully managed at the start of swath grazing more when feeding mature crops. Make sure they have access to hay, silage or straw to fill rumens when they go onto swaths for the first time. Thereafter, supplement before opening up another area to graze at least for the first two-three weeks of grazing mature swaths. Also, move animals to new swath rations more frequently for that adaptation time (every ½ -1-2 days) so animal rumen fill, feed quality variability, and their grazing behaviour can be controlled.

Meeting animal calcium and magnesium needs are usually challenging when swath grazing. Use wet chemistry feed tests for mineral accuracy. Supplement and monitor free choice intake of calcium and magnesium (as needed) in a good trace mineral salt. Sometimes supplementing with a high calcium legume mix hay every few days is required to meet animal calcium requirements or to boost protein levels.

Table 1. - Samples taken from different sites in the west-central area

Sample	Date	% Crude Protein	%TDN	%NDF	%Calcium	%Phosphorus
KB 1	Oct-2009	5.75	57.70	59.60	0.27	0.07
KB 2	Oct-2009	7.00	61.90	53.20	0.22	0.11
KB 3	Oct-2009	7.06	63.00	52.40	0.20	0.13
WC 1	Oct-2010	7.06	63.00	52.40	0.20	0.13
CB 1	Jun-2012	11.56	67.19	43.26	0.17	0.30
CB 2	Jun-2012	10.79	65.20	47.71	0.18	0.29
CB 3	Jun-2012	10.68	64.54	51.01	0.18	0.28
JO trit/oats	Sep-2012	9.25	59.99	54.76	0.31	0.17
PR spring-Tyndal	Oct-2012	14.92	60.61	58.07	0.44	0.29
KB 1	Nov-2012	10.66	58.33	58.02	0.27	0.23
CB trit/oats	Sep-2013	9.08	66.82	48.28	0.33	0.21
PR trit 1	Sep-2013	10.18	64.70	49.73	0.24	0.22
CB trit 1	Sep-2013	10.15	69.92	43.40	0.15	0.21

2 | Seeding rate for the different spring seeded varieties

The seeding rates vary from zone to zone. Since triticale does not tiller well, higher seeding rates are crucial to yield. This value should be established by examining the thousand kernel weight, germination, vigour, and include fungal screens. The rate should be greater than 30 seeds/sq. ft. (See Table 28) [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd10571](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd10571)

Follow this link to the ARD Triticale spring seeding rate calculator <http://www.agric.gov.ab.ca/app19/calc/crop/seedcalculator.jsp?crop=Triticale%2C+Spring>

3 | Average tonnage yield (dry matter basis), variety choices, and yield considerations

Fertility from soil, applied fertilizers, and nutrient cycling of urine and manure over years of swath grazing on the same land will effect yield greatly. Applied fertilizers are recycled quite effectively by animals so should be considered as an investment that will repay itself over time on a swath grazing field. Cutting at later growth stages in spring triticale will also help increase yield.

<http://www.canadiancattlemen.ca/2013/06/21/mature-cereal-forage-is-better-than-you-might-think/>

Higher yields and wider swathing width to create larger swaths in preparation for winters of greater snow depth is good risk management. Although more costly, baling headlands, low areas, and leaving bales on the field for bale grazing where snow depth can limit access, is another option to reduce risk, and manage cost of other feeding options.

Since triticale can have regular or reduced awn, this should be considered along with yield potential when choosing a variety of spring triticale to seed. If animals have access to water regular awned triticale can be an option. If animals will use snow as a water source reduced awn is recommended. Generally the more mature triticale is at harvest, the greater concern of awns getting lodged in animals' mouths will be. Of the reduced awn newer varieties, generally Tyndal is thought of as being a better choice for drier areas. Bunker, Taza (both reduced awn) and Bumper (regular awn) may be good choices for more moist areas. Table 5 is from the

ARD website Technical Bulletin: Bunker Spring Triticale [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd10889](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd10889)

4 | Varieties of spring triticale used in trials and that are recommended for forage production:

Three varieties that were seeded last year:

Bunker: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd10889](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd10889)

Taza: [http://www1.agric.gov.ab.ca/\\$Department/deptdocs.nsf/all/fcd13573](http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/fcd13573)

Tyndal: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd10888](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd10888)

5 | Recommended seeding dates

Spring triticale, when seeded at Lacombe, at the end of May up to June 10 at showed no yield reduction from delayed seeding.

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex12419](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12419)

6 | Pest concerns

<http://www.agric.gov.ab.ca/app95/loadCrop?action=display&id=53>

Bunker has one of the best disease resistance profiles of the spring triticales. The area of exception is ergot. Due to the long flowering period of triticales and ryes they are both quite susceptible to ergot. The new variety Sunray (regular awned-grain variety with no forage data) is a spring triticale breakthrough as it has ergot resistance. Assess ergot levels in crop to determine if it is an issue.

Due to lack of herbicide trials on triticale for weed control, in crop weed control is limited with triticale. Talk to your local agronomist or directly with a herbicide company for options.

Contacts

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Table 5. Silage yield potential in FCDC tests at Lacombe, AB (2001-2004). Harvest stage was early dough.

	TEST LINES		2001		2002		2003		2004	
	t ha-1	%	t ha-1	%	t ha-1	%	t ha-1	%	Mean t ha-1	Mean %
Pronghorn	12.7	100	6.5	100	13.8	100	12.7	100	11.4	100
AC Ultima	12.5	98	7.6	117	14.2	103	12.2	96	11.6	104
Bunker	13.1	103	7.0	107	15.4	109	13.7	107	12.3	107
Tyndal	12.2	96	7.6	117	14.2	103	12.7	100	11.7	104