

TAPIT HYBRID BRASSICA

YEAR ONE RECAP

It's been an exciting year one for TapIt Hybrid Brassica. We have a patent pending on TapIt Hybrid Brassica, including genetics and potential oilseed-related applications. Contact us if you have questions.

TapIt has shown strong performance in reducing soil compaction with its unique, proprietary root structure. The upright leaf growth architecture eliminates the shading risk encountered when using other brassicas or radishes. Below we will go over how TapIt can improve so many of your offerings.

PLANT PERFORMANCE



From Michigan to Florida, TapIt has consistently outperformed Daikon Radish. The cold tolerance is much greater than Daikon. ***With snow cover TapIt survived temperatures of -9°F. Without snow cover we received positive feedback at temperatures as low as 5°F.*** Unlike daikon, no observations were made of the taproot being negatively impacted by compaction layers. No j-hooking, no pushing out of the ground just driving through exactly like the root was designed to do. One comment we heard was, “It actually does what people think Daikons are supposed to do.”



Left – TapIt plant dug from a field in Illinois (photo from Midwest Grass & Forage)

Right – TapIt root penetrating the hard pan in South Carolina (image courtesy of Doug Newton Facebook post)



 Doug Newton 

The preliminary assessment is that we have a winner here!

The improvements we made in leaf architecture were noted by many, in that it is much more compatible in mixtures than Radishes and Brassicas. The upright leaves provide more opportunities for other species to establish without risk from shading. One user combined it with Annual Ryegrass and noted that there was no shading of the ryegrass, and it was great feed. He commented **“I seeded it at 2 lbs./A. but it looks like 4!”**

NEW RESEARCH FINDINGS

Last year we were fortunate to have Cargill evaluate the TapIt seed for oil content and quality. The seed oil content came back at an extremely high number of 49%.

Moisture & Volatile Matter (% weight)	Oil content (% weight, As-Is)	Oil content (% weight, DW)	Protein (% weight, As-Is)	Protein (% weight, DW)	Total Glucosinolates (µmol/g, DW)	Chlorophyll (ppm)	Fatty Acid Profile																
							C12_0	C14_0	C16_0	C16_1	C18_0	C18_1	C18_2	C18_3	C20_0	C20_1	C20_2	C22_0	C22_1	C22_2	C24_0	C24_1	TOTSATS
4.8	47.13	49.51	21.58	22.67	76.2	13.8	0.00	0.03	1.77	0.14	0.92	10.45	12.07	8.90	0.79	8.39	0.64	0.89	51.40	0.91	0.35	1.66	4.74

Oil seed quality was satisfactory with the note that the meal after extraction was high in glucosinolates. Once we learned of the high glucosinolate content in the oil we were concerned if it would be high in other parts of the plant.

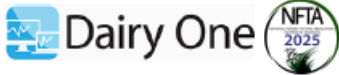
As we are a science-driven company, the glucosinolate comment necessitated the identification of the types and quantity of glucosinolate compounds in the roots and leaves. We had to contract out this research, as we did not have the equipment or experience. **The good news is that the forage is completely safe for livestock consumption, comparable to forage Kale.** The great news is that the roots were high in the glucosinolate compound, gluconasturtiin. The levels found across a multitude of samples of this compound are atypical in brassica roots. We are evaluating the potential of this revelation and how it could prove beneficial in the use of applications. This process will require much further testing and EPA registration. Until then, we are prohibited from making any claims. We aren't trying to be evasive, it's just that it is prohibited until registration is complete.

ADDITIONAL MARKET APPLICATIONS

In addition to being a fabulous cover crop, there are additional opportunities to incorporate TapIt into your product offerings.

Forage - In addition to cover crop usage, TapIt is also highly beneficial in pasture applications. The forage is highly nutritious with no glucosinolate risk. The upright growth habit makes it a great in mixtures as it will not shade out the other components. The root structure provides natural aeration to the grasses, stimulating growth. The channels created by the roots are narrow enough to not be a danger to livestock, unlike Daikon radish. **These channels also improve water and manure infiltration to promote healthy root growth and encourage the development of microbial species.**

Food Plots – TapIt has been shown to be preferentially grazed by deer. The **upright growth habit is perfectly suited for browsers.** High in nutritional quality, TapIt forage supports body condition and antler development. Rapid germination makes it perfect for attracting deer in the Fall.



FORAGE TESTING LABORATORY
 DAIRY ONE, INC.
 730 WARREN ROAD
 ITHACA, NEW YORK 14850
 607-257-1272 (fax 607-257-1350)

 |Sample Description |Farm|Code| Sample |
 |FR BRASSICA FORAGE | |218 |30678500|

TAPLT HAYBRID / BRASSICA GREENHOUSE

Analysis Results

 |Sampled | Recvd |Printed |ST|CO|
 |04/02/25|04/04/25|04/22/25| | |

		Components	As Fed	DM
TAPLT HAYBRID / BRASSICA GREENH		% Moisture	90.4	
Grassland Oregon		% Dry Matter	9.6	
PO Box 17219		% Crude Protein	2.8	29.2
Salem, OR 97305		% ADF	1.1	11.7
		% aNDF	2.1	21.5
		% aNDFom	1.8	19.1
		% Lignin	.2	1.8
		% NFC	2.4	25.4
		% Starch	.5	4.8
		% ESC (Simple Sugars)	1.5	16.1
		% Crude Fat, EE	.41	4.27
		% Ash	1.88	19.66
		% TDN	6	65
		NEL, Mcal/Lb	.07	.73
		NEM, Mcal/Lb	.07	.69
		NEG, Mcal/Lb	.04	.42
		% Calcium	.21	2.18
		% Phosphorus	.06	.58
		% Magnesium	.03	.29
		% Potassium	.58	6.09
		% Sodium	.027	.284

ENERGY TABLE - NRC 2001

	Mcal/Lb	Mcal/Kg
DE, 1X	1.41	3.10
ME, 1X	1.22	2.69
NEL, 3X	0.71	1.57
NEM, 3X	0.75	1.65
NEG, 3X	0.47	1.04
TDN1X, %	65	

COMMENTS:

1. THIS SAMPLE WAS TESTED TWICE
 FOR CRUDE PROTEIN, LIGNIN, ACID
 DETERGENT FIBER, NEUTRAL
 DETERGENT FIBER AND ANDFOM TO
 CONFIRM THE VALUES LISTED.

PPM Iron	27	284
PPM Zinc	4	38
PPM Copper	< 1	7
PPM Manganese	13	132
PPM Molybdenum	< 0.1	1.0
% Chloride Ion	.04	.46
Horse DE, Mcal/Lb	.11	1.15

Contact us to secure your supply for the coming year. Given the results from year one we anticipate great demand. Don't be left out!