Fodder Beet Variety Trial

Mike Ostlie and Chanda Engel

A small plot trial was conducted in 2013 to evaluate the yield potential of four varieties (2 yellow and 2 white) of fodder beets in central North Dakota. In some parts of the world, fodder beets are heavily relied upon as a feed resource in beef and dairy production. Like typical sugarbeets, fodder beets can be grown in high salt and low moisture conditions. Compared to typical sugarbeet varieties, fodder beets grow larger in size and the beet "bulbs" tend to protrude further out of the ground, by two or more inches. Both factors make them easier to harvest than sugarbeets. Fodder beets contain less sugar and tend to have lower nutrient density than sugarbeets; however their larger size may counteract that aspect. As a comparison, the energy beets in other 2013 research trials typically weighed between 1 to 2 lbs per beet, while in this trial, the fodder beets weighed about 3 to 4 lbs per beet.

The actual planted population for the study was 40,000 seeds/ac. This year, only ½ to ¾ of the stand emerged and matured, indicating poor adaptation, poor seed lot, or poor emergence conditions. It will take another year of production to determine the role environmental conditions played in establishment. Beyond the large beet size, the actual harvested yield was similar to other local energy beet trials (mid-20 to 30 tons/ac). The yellow varieties had the largest beets and often the highest yields; however the white variety Enermax performed similarly to the yellow beets. This may be due to the higher plant population achieved with this variety. Dry matter percent was similar between varieties on a per beet basis and on a per acre basis.

Fodder Beet Variety Trial						**Carrington**
Variety	Beet Color	Stand	Yield/Beet	Fresh Root Yield	Dry Matter (DM)	DM Yield
		plants/ac	lb	ton/ac	%	ton/ac
Bangor	yellow	19270	4.1	26.4	20.96	5.5
Magnum	white	24830	2.8	22.9	20.00	4.6
Enermax	white	30370	3.0	29.5	20.64	5.9
Kyros	yellow/orange	21230	4.5	31.1	19.01	5.9
	Mean	23925	3.6	27.5	20.15	5.5
	LSD (0.1)	8640	0.5	5.4	3.90	1.6
	C.V. (%)	29.8	22.5	19.4	13.2	21.2