

## FEEDING TRITICALE IN A FATTENING RATION TO BEEF CATTLE

This trial, to compare triticale to barley as a source of energy in a high roughage fattening ration, was started in November, 1968 and has been continued for three years.

The trial has been conducted with Hereford heifers fed a high roughage fattening ration for from 302 to 337 days. In 1968-69, the heifers were fed in a lot with a slatted board fence on the north and west for protection. The last two years the heifers were fed in a lot with a pole shed for weather protection.

Both the triticale and barley were fed as a dry-rolled feed. In 1968-69, the triticale fed contained ergot, while the 1969-70 and 1970-71 triticale was practically free of contamination.

Barley and triticale have similar weights per bushel, but triticale has about 2 percent less fiber and 4 percent more protein.

The susceptibility of triticale to ergot and its palatability problems may limit its usefulness as a feed crop. In addition, higher yielding varieties of triticale will have to be developed before it will successfully compete with barley and oats, both of which have generally out-yielded the varieties of triticale now available.

Table 15 shows data from the trials comparing triticale to barley as an energy feed for beef cattle. Table 16 summarizes the rations fed during this trial.

**Table 15. Weights, Gains, Feed Cost and Carcass Data from Feeding Trials Comparing Triticale and Barley**

<b>Data on:</b>		<b>Triticale</b>	<b>Barley</b>
Number of head per lot		24	23
Avg. initial weight per head	1968-69	372.6	374.3
	1969-70	387.5	388.1
	1970-71	386.9	386.3
	Average	<u>382.3</u>	<u>382.9</u>
Avg. final weight per head	1968-69	856.3	917.9
	1969-70	937.5	931.9
	1970-71	958.8	958.1
	Average	<u>917.5</u>	<u>936.0</u>
Days fed	1968-69	302	302
	1969-70	337	337
	1970-71	337	337
	Average	<u>325.3</u>	<u>325.3</u>
Avg. daily gain per head	1968-69	1.59	1.80
	1969-70	1.63	1.61
	1970-71	1.70	1.70
	Average	<u>1.64</u>	<u>1.70</u>
Feed cost per hundred pounds gain	1968-69	\$16.84	\$15.21
	1969-70	\$16.83	\$17.07
	1970-71	\$16.20	\$16.55
	Average	<u>\$16.62</u>	<u>\$16.28</u>
Hot carcass weight per head	1968-69	511.5	547.0
	1969-70	558.8	549.9
	1970-71	591.1	568.2
	Average	<u>553.8</u>	<u>555.0</u>
Avg. dressing percent	1968-69	59.7	59.6
	1969-70	59.6	59.0
	1970-71	61.7	59.3
	Average	<u>60.3</u>	<u>59.3</u>
Avg. USDA grade	1968-69	8.63	9.00
	1969-70	9.25	9.63
	1970-71	10.00	9.62
	Average	<u>9.29</u>	<u>9.42</u>
Avg. carcass value	1968-69	\$202.33	\$216.98
	1969-70	\$237.22	\$233.97
	1970-71	\$292.61	\$279.03
	Average	<u>\$244.05</u>	<u>\$243.33</u>

**Table 16. Rations Used in the Feeding Trials Comparing Triticale and Barley**

	Triticale Ration					Barley Ration			
	1968-69	1969-70	1970-71	3-Yr. Avg.		1968-69	1969-70	1970-71	3-Yr. Avg.
<b>Ration lbs. per head per day:</b>									
Triticale	5.95	5.87	8.20	6.67		----	----	----	----
Barley	----	----	----	----		6.10	5.87	8.25	6.74
Corn silage	29.20	33.99	16.40	26.53		30.10	34.18	16.45	26.91
Alfalfa	1.60	----	2.03	1.82		1.60	----	2.03	1.82
Soybean oilmeal	0.50	----	----	----		0.50	----	----	----
Supplement <sup>1/</sup>	----	1.00	0.99	1.00		----	1.00	0.99	1.00
Minerals	0.20	0.20	0.20	0.20		0.20	0.20	0.20	0.20

<sup>1/</sup> Plain Supplement: 493 lbs. soybean oilmeal, 497 lbs. ground alfalfa, 10 lbs. trace mineral salt.

**Summary**

Good, clean, ergot free triticale will compare favorably with barley when fed in high roughage fattening rations to beef cattle. The average daily gain, feed cost per hundred pounds gain and carcass quality show no differences between barley and triticale when only the last two years are considered. Evidently, the level of ergot in the 1968-69 triticale can be blamed for the poor showing in that year. Although the gains were similar, it appears that barley is better accepted by the animals on feed, and this becomes more noticeable when increasing amounts of grain are fed.