

**FEEDING TRITICALE IN A FATTENING RATION TO BEEF CATTLE**

A trial to compare triticale to barley as a source of energy in a high roughage fattening ration was started in November, 1968 and repeated again in November, 1969.

In this trial Hereford heifers were 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. In 1969-70 the heifers were in a lot with a pole shed for weather protection.

The triticale and barley were both fed as a dry rolled feed. In 1968-69, the triticale fed contained appreciable amounts of ergot. In 1969-70, the triticale was nearly free of ergot. The triticale and barley were analysed as follows:

		Percent	Percent	Percent	Percent	Percent	Weight
		<u>Dry matter</u>	<u>Ash</u>	<u>Fiber</u>	<u>Lignin</u>	<u>Protein</u>	per
							<u>bushel</u>
Triticale	1968	89.63	2.46	6.05	2.40	16.75	48 lbs.
Barley	1968	90.00	2.21	8.45	1.65	12.80	48 lbs.

Tables 14, 15, and 16 show 2 year average rations, weight gains and carcass data.

**Table 14. Average Daily Ration In Pounds Per Head Per Day.**

	<u>Triticale ration</u>			<u>Barley ration</u>		
	<u>1968-69</u>	<u>1969-70</u>	<u>2-Yr. Avg.</u>	<u>1968-69</u>	<u>1969-70</u>	<u>2-Yr. Avg.</u>
Average daily ration – lbs.						
Triticale	5.95	5.87	5.91	-	-	-
Barley	-	-	-	6.10	5.87	5.99
Soybean oilmeal	0.50	-	-	0.50	-	-
Supplement <sup>1/2</sup>	-	1.00	-	-	1.00	-
Corn silage	29.20	33.99	31.60	30.10	34.18	32.14
Alfalfa hay	1.60	-	-	1.60	-	-
Minerals	0.20	0.20	0.20	0.20	0.20	0.20
<sup>1/2</sup> Supplement fed in 1969-70 was made up of:						
Soybean oilmeal	495 lbs.					
Ground alfalfa	495 lbs.					
Trace mineral salt	<u>10 lbs.</u>					
	1000 lbs.					

**Table 15. 2-Year Summary of Weights, Gains and Dressing Percent of Heifers Fed Either Triticale or Barley.**

	<u>Triticale ration</u>			<u>Barley ration</u>		
	<b>1968-69</b>	<b>1969-70</b>	<b>2-Yr. Avg.</b>	<b>1968-69</b>	<b>1969-70</b>	<b>2-Yr. Avg.</b>
Number head	8	8	16	7	8	14
Average initial weight	372.6	387.5	380.1	374.3	388.1	381.2
Average final weight	856.3	937.5	896.9	917.9	931.9	924.9
Days fed	302	337	320	302	337	320
Average daily gain	1.59	1.63	1.62	1.80	1.61	1.70
Feed cost per hundredweight gain	\$16.84	\$16.83	\$16.84	\$15.21	\$17.07	\$16.14

**Table 16. 2-Year summary of Carcass Data of Heifers Fed Either Triticale or Barley.**

	<u>Triticale ration</u>			<u>Barley ration</u>		
	<b>1968-69</b>	<b>1969-70</b>	<b>2-Yr. Avg.</b>	<b>1968-69</b>	<b>1969-70</b>	<b>2-Yr. Avg.</b>
Hot carcass weight	511.5	558.8	535.2	547.0	549.9	548.5
Average dressing Percent	59.7	59.6	59.7	59.6	59.0	59.3
USDA grade <sup>1/</sup>	8.63	9.25	8.94	9.00	9.63	9.32
Average carcass value	\$202.33	\$237.22	\$219.78	\$216.98	\$233.97	\$225.48
<sup>1/</sup> USDA grades are: Low good, 7; average good, 8; high good, 9; low choice, 10; average choice, 11; and high choice, 12.						

### **Summary**

Although triticale has a higher protein and a lower fiber content than does barley, it appears to lack palatability when fed over an extended period of time. Triticale is also susceptible to infestations of ergot which may reach toxic levels. The triticale fed in 1969 contained only trace amounts of ergot and appeared to be more readily accepted by the heifers than it was in 1968.

The heifers fed triticale performed about equal to the barley fed heifers in 1969-70 but tended to grade slightly lower.

One heifer in the barley fed lot suffered a small set back about midway through the 1969-70 trial due to a respiratory illness. If she were removed from the calculations, there would be a lowering in the feed cost per hundredweight gain and improvement in the average carcass value of the barley fed lot.

The two year averages show an advantage for barley over triticale, in rate of gain, cost of gain, and carcass value as feed for beef heifers.