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Pine Sawdust as a Roughage Replacement in  
Cattle Finishing Diets

A. L. Slyter and L. D. Kamstra

Two lots of 12 heifers each were full fed daily one of two diets for 115 days to study the effect of sawdust replacement of ground alfalfa in a finishing diet on the performance and carcass characteristics of beef heifers. Diet composition is shown in table 1. Trace mineral salt and dicalcium phosphate were provided free choice.

Feedlot performance and carcass data results are shown in table 2. No difference was noted between heifers on the two diets in average daily gains. Heifers on the control diet consumed 0.7 lb. more feed per head daily and required an additional 25 lb. of feed per 100 lb. gain than heifers on the diet containing sawdust. Preliminary analyses of the carcass data indicated no differences due to diet. Six livers were condemned at slaughter due to abscesses, four in the cattle receiving sawdust and two in the control group. Condemnations were below what is considered normal for fed cattle. No rumen parakeratosis was noted in either group of cattle.

These results indicate that sawdust can replace ground alfalfa in high-concentrate diets at the levels fed without depressing feedlot gains or carcass quality. Additional studies are needed to determine maximum levels that are acceptable. In addition, the possible benefit of sawdust inclusion at low levels in an all-concentrate diet needs to be investigated.

Table 1. Percentage Composition of Diets

Ingredient	Diet	
	Alfalfa-concentrate	Alfalfa-sawdust concentrate
Ground corn	78.5	75.5
Ground alfalfa hay	10.0	5.0
SBOM <sup>a</sup>	11.0	13.5
Sawdust	0.0	5.0
Dicalcium phosphate	0.5	1.0

<sup>a</sup> 6,000 I.U. vitamin A per pound of SBOM.

Table 2. Pine Sawdust as a Roughage Replacement in Fat Cattle Diets

Diet	Alfalfa- concentrate	Alfalfa-sawdust concentrate
Number of heifers	12	12
Initial shrunk wt, lb.	580.0	579.2
Final shrunk wt., lb.	882.1	881.7
Avg. daily gain, lb.	2.6	2.6
Avg. daily feed, lb.	18.0	17.3
Feed/100 lb. gain, lb.	689	663
Avg. U.S.D.A. grade <sup>a</sup>	19.25	18.67
Avg. dressing percent	60.4	59.9
Avg. rib eye area, sq. in.	11.1	11.4
No. condemned livers	2	4

<sup>a</sup> 19 = Low Choice, 18 = High Good.