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Abstract
Feedlot cattle from 1,687 pens totaling 290,183 head were evaluated at slaughter for the presence of liver flukes. Overall, 4.92% of the cattle were found to be infected. Only 15.2% of all pens of cattle were found to be completely free of flukes. However, only 5.3% of the pens had greater than 15% of the cattle infested. Beef steers had a higher level of infestation (5.2%) than beef heifers (4.4%). Holstein steers had an overall infestation rate of 4.4%.

Keywords
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LIVER FLUKE INFESTATION IN KANSAS FED SLAUGHTER CATTLE

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Summary

Feedlot cattle from 1,687 pens totaling 290,183 head were evaluated at slaughter for the presence of liver flukes. Overall, 4.92% of the cattle were found to be infected. Only 15.2% of all pens of cattle were found to be completely free of flukes. However, only 5.3% of the pens had greater than 15% of the cattle infested. Beef steers had a higher level of infestation (5.2%) than beef heifers (4.4%). Holstein steers had an overall infestation rate of 4.4%.

Introduction

The economic impact of liver flukes is substantial in pens of feedlot cattle known to be heavily infected with the parasite; daily gain can be reduced up to 20% and feed conversion increased up to 25%. The total dollar loss to the industry is difficult to determine, however, because research data on performance losses is minimal and most cattle thought to be completely free of the parasites, in fact, may be infested at low rates. This study was conducted to acertain the incidence of liver flukes in slaughter cattle fed in Kansas feedlots.

Experimental Procedures

Periodically throughout 1986 and 1987, random pens of cattle were monitored during slaughter. Following eviseration, USDA Food Safety and Inspection Service employees evaluated livers for evidence of liver fluke infestation. All livers were evaluated, except for severely abscessed livers that were condemned prior to fluke evaluation. Thus, the order of inspection may have introduced a slight negative bias in the incidence of flukes. No differentation was made between livers with live flukes or with fluke damage or between species of fluke; all were reported as infested. All pens of cattle evaluated in this study were classified as beef-type steers or heifers or Holstein steers. Only pens of 30 head or more were evaluated.

Results and Discussion

Results of the slaughter survey are presented in Table 33.1. Only 13.6% of all pens of beef steers were entirely free of liver fluke infestation. However, 67.0% of the 1062 beef steer pens surveyed had less than 5% of the animals with flukes. Beef heifers and Holstein steers had similar infestation patterns. Overall, the presence of flukes in beef steers, heifers, and

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Holstein steers was 4.73, 4.12, and 3.34% in 1986 and 5.76, 4.74, and 5.20% in 1987, respectively.

These date indicate that although liver flukes in feedlot cattle are widespread, the frequency of occurrance is small; only 29 of 1687 pens had greater than 25% of the cattle per pen infested.

Table 33.1. Incidence of Liver Flukes in Kansas Fed Slaughter Cattle

Class of Cattle	% of Cattle/Pen With Flukes	Number of Pens		Total Cattle		Percent of Pens	
		1986	1987	1986	1987	1986	1987
Beef Steers	0.0	72	72	8,414	7,172	15.7	12.0
	0.1 - 5.0	247	321	46,268	60,002	53.8	53.2
	5.1 - 10.0	96	118	20,960	23,475	20.9	19.6
	10.1 - 15.0	25	49	4,675	10,067	5.4	8.1
	15.1 - 25.0	15	29	2,824	5,084	3.3	4.8
	Over 25.1	4	14	819	2,434	0.9	2.3
	TOTAL	459	603	83,960	108,234	100.0	100.0
Beef Heifers	0.0	46	41	5,622	4.127	18.0	17.7
	0.1 - 5.0	147	114	28,535	19,751	57.4	49.3
	5.1 - 10.0	40	54	8,040	10,385	15.6	23.4
	10.1 - 15.0	12	14	2,167	2,676	4.7	6.1
	15.1 - 25.0	8	3	1,229	382	3.1	1.3
	Over 25.1	3	5	610	531	1.2	2.2
	TOTAL	256	231	46,203	37,852	100.0	100.0
Holstein Steers	0.0	22	4	1,812	322	24.4	8.3
	0.1 - 5.0	51	29	5,597	3,184	56.7	60.4
	5.1 - 10.0	10	4	982	419	11.1	8.3
	10.1 - 15.0	5	5	454	502	5.6	10.5
	15.1 - 25.0	1	4	80	418	1.1	8.3
	Over 25.1	1	2	64	100	1.1	4.2
	TOTAL	90	48	8,989	4,945	100.0	100.0