

## Economic Analysis and Discussion of Results

A previous economic analysis on liver flukes (Simpson, Kunkle, Courtney, and Shearer, 1985) estimated that financial benefits to producers from fluke control are derived from reduced death, weight and productive loss in cows and replacement heifers as well as reduced calf sale weight. However, at the time of the analysis published data were scanty, and consequently estimates were largely based on opinions of veterinarians associated with the disease. The purpose of this section is to compare and contrast data and results from the previous study with data generated by the surveys, and to include new information from the author's study. Information in addition to that presented in the text and associated tables is provided in Appendix.

## Death Loss

The average death loss for producers in the five-county survey area (the five counties described in the first section of this report) who treated for flukes, and also estimated they do have flukes, was 1.51 percent (Table 16). In contrast, the death loss reported was 1.05 percent for those who didn't treat (6 producers). These results may be biased by the small number of those who didn't treat, only representing 10 percent of the cattle. Perhaps more important were the group who indicated they didn't know, in which the average death loss was 0.90 for those who treat versus 1.65 for those who didn't treat. The number of producers by size category was too small to permit statistical analysis by category. Thus, no conclusions can be drawn concerning the effect of flukes on cattle mortality.

**Table 16. Average death loss of brood cows according to treatment for flukes, all ranches, five-county Florida survey, 1984.**

Treatment	Ranches	Total cow inventory	Total death loss	Average death loss
	-Number-	----- Head -----		-Percent-
		Don't know if they have flukes <sup>a</sup>		
Yes	20	2,455	22	0.90
No	54	4,001	66	1.65
Subtotal	74	6,456	88	1.36
		Yes, they do have flukes <sup>b</sup>		
Yes	59	135,027	2,035	1.51
No	6	15,315	161	1.05
Subtotal	65	150,342	2,196	1.46
		No, they don't have flukes <sup>c</sup>		
Yes	13	2,206	30	1.36
No	20	2,350	39	1.66
Subtotal	33	4,556	69	1.51
		Total <sup>d</sup>		
Yes	92	139,688	2,007	1.44
No	80	22,466	266	1.18
Total	172	162,152	2,352	1.45

<sup>a</sup>Significant difference between yes and no,  $p = 0.015$

<sup>b</sup>Significant difference between yes and no,  $p = 0.00001$

<sup>c</sup>No significant difference between yes and no.

<sup>d</sup>Significant difference between yes and no,  $p = 0.014$