

Average Weight of Cull Cows

Analysis of all respondents shows that on average those who did treat received a 40 lb. advantage over those who did not treat (Table 17). However, these totals, and the rest of those in this section on economic analysis, are subject to misrepresentation since they include some producers whose ranches probably didn't have flukes. In addition albendazole, which was the only flukicide available at the time of the survey, was a potent nematocide and some of the apparent albendazole benefit may be from its control of stomach and intestinal worms. An attempt is made to circumvent this problem by dividing the results according to treatment.

Results from the aggregation of the 37 producers who do treat, even though they don't know if they have flukes, indicate they have a 37 lb. advantage compared with those who do not treat. However,

Table 17. Average weight of cull cows according to treatment for flukes, all ranches, five-county Florida survey, 1984^a.

Treatment	Ranches	Average weight	Advantage treatment
	-Number-	----- Pounds -----	
	<u>Don't know if they have flukes</u>		
Yes	8	878	37
No	29	841	-
Subtotal	37	849	-
	<u>Yes, they do have flukes</u>		
Yes	47	884	1
No	5	883	-
Subtotal	52	884	-
	<u>No, they don't have flukes</u>		
Yes	7	926	74
No	14	852	-
Subtotal	21	877	-
		<u>Total</u>	
Yes	62	888	40
No	48	848	-
Subtotal	110	871	-

^aSignificance levels between treated and non-treated cannot be calculated due to not having individual cow weights.

oddly enough, of the respondents who estimated they do have flukes on their property, there was no difference between those who do treat (47) and those who don't treat (5). In contrast, there was a 74 lb. advantage to the 7 producers who treat even though they feel flukes are not present on their ranches compared with those 14 who say no, but don't treat. Thus, it is not possible to arrive at a firm conclusion with this data about cull cow weight differences.

Results from a recent survey conducted over a two year period on a large central Florida ranch indicated that on a *whole herd basis* cows treated for flukes weighed 77 lbs. more per head than controls. Treated *cull* cows averaged about 20 lbs. heavier than controls (Simpson, Griner and Richey, 1989).

Overall, it appears that the range in weight loss is probably from 30-50 lbs. per cow in the herd on average, and that the low to high range could easily be 20 to 60 lbs. The range for cull cows is likely 10-30 lbs.

Reproductive Losses

The measure for reproductive loss is reduced calf crop. Overall, of the 176 respondents who replied to the questions on treatment as well as provided estimates of flukes, the 94 who replied "yes" they do treat, had an average calf crop of 85 percent (Table 18). In contrast, those who do not treat had a 77 percent calf crop, i.e. 8 percent less.

Results from the two-year study on the central Florida ranch mentioned earlier (Simpson, Griner and Richey, 1989) indicated there was no statistical difference in reproductive losses between the treated and control groups. At this point, estimates of reproductive losses are open to wide discussion. Given that flukes do have a *long-term* debilitating effect, an estimate of 1-3 percent is reasonable, but not supported by statistical evidence.

It was not possible to determine calf weight differences in treated versus non treated cows from the survey. However, the central Florida study (Simpson, Griner and Richey, 1989) indicated that steer calves treated only for flukes averaged 44 lbs. more than controls over the two-year period while those treated for both flukes and parasites averaged 32 lbs. more than controls. The corresponding weights were 31 and 26 lbs. for heifer calves. The combined weighted average advantage (for steer and heifer calves) was 39 lbs. Thus, while the results are open to discussion, it is concluded that the appropriate range in weight advantage for calves from treating is 30-45 lbs.