The Value of Dehydrated Alfalfa and Delayed Grain Feeding of Heifers on Winter Bluestem Pasture, 1965-66 (Project 253)

M. C. Hall, E. F. Smith and H. G. Spies

Two primary objectives of this test were to:

- (1) Compare dehydrated alfalfa with soybean oil meal as a winter supplemental feed on bluestem pasture for heifer calves to be bred shortly after the winter feeding period.
- (2) Determine merit in feeding grain the last 30-40 days of the winter period compared with feeding the same total amount of grain throughout the winter where heifers are to be bred shortly after the winter feeding period terminates.

Each of three treatment groups contained 27 or 28 Hereford heifer calves, good to choice grade. Initial average weight was 427 pounds.

Each of the three treatments contained two groups of heifers with 13-14 heifers per group. A total of three groups, one from each of the three treatments, were pastured together and redivided each day to receive experimental rations. Each of the three remaining groups was pastured separately. The heifers pastured together came from near Paxico, Kansas; the others, maintained in separate pastures, came from near Beaumont, Kansas.

The experimental plan follows:

- Treatment 1 1 pound of soybean oil meal and 2 pounds of ground sorghum grain fed per heifer daily during the entire winter feeding period.
- Treatment 2 Soybean oil meal fed at 1.5 lb. per heifer daily until 30 to 40 days before the feeding season ended, then sorghum grain was fed. The same total amount of sorghum grain as fed under treatment 1 throughout the winter was concentrated during the last 30-40 days with the soybean oil meal discontinued when grain feeding reached the quantity to supply the same protein in the soybean oil meal.
- Treatment 3 Dehydrated alfalfa fed at 3.3 lb and ground sorghum grain at 1 lb. per heifer daily during the entire winter feeding period.

The above three rations were formulated to supply approximately the same amount of protein and total digestible nutrients for the total winter feeding period. In addition each heifer received per head daily an average 20,000 I.U. of vitamin A and 0.05 lb. of monosodium phosphate. Salt was fed free choice. Twelve of the heifers from each treatment group were implanted with 15 mg. of diethylstil-bestrol December 18, 1965, and 6 of the same heifers were reimplanted with 15 mg. diethylstilbestrol March 26, 1966. The treatment was to determine if diethylstilbestrol will enlarge the pelvic open-

ses of feeds all shown on the inside back cover of this bulletin. From December 18, 1965, to March 26, 1966, the daily winter gain per heifer was as follows: Treatment 1: | Soybean oil meal and grain, 0.36 lb. 0.44# Treatment 2: Soybean oil meal and delayed grain feeding, 0.31 lb. (represents performance on 1.5 lb. of soybean oil meal per heifer daily since grain feeding began about the date heifers were weighed for this report, March 26, 1966). Treatment 3.3. Dehydrated alfalfa and grain, 0.41 lb. The heifers will be bred starting in mid-May, 1966. · implants los tare described unleved on delivater pasture + all fed some 761 + Treatment 1- describe + results - turn

ing and permit easier calving by two-year-old heifers and permit observations of its effect on breeding efficiency. Chemical analy-