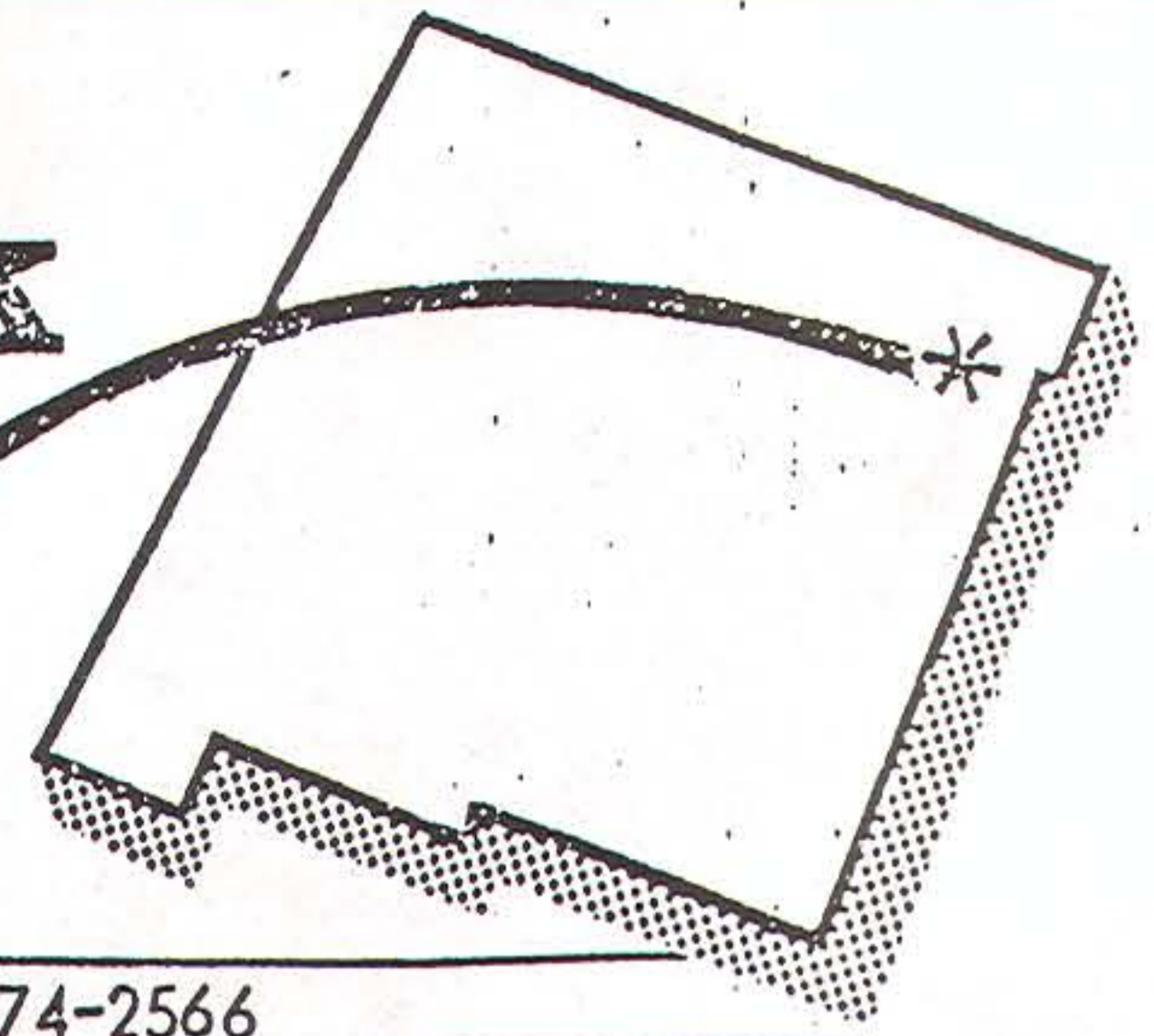




Clayton Livestock Research Center

PROGRESS REPORT



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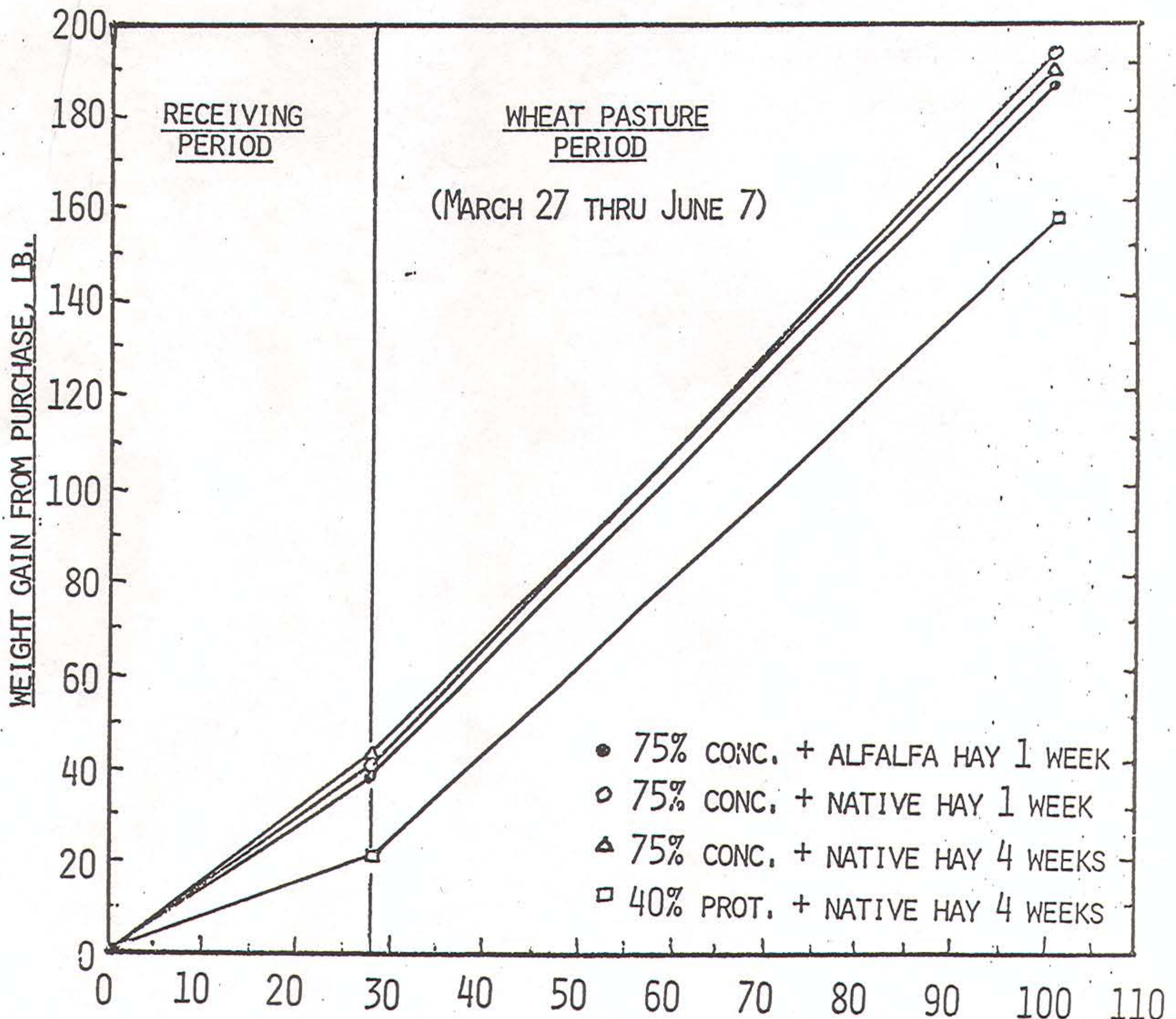
Progress Report No. 24 (August, 1981)

EFFECT OF RECEIVING RATION ON SUBSEQUENT GAINS ON WHEAT PASTURE

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In the last Progress Report (No. 23, July, 1981) sent out from this Center a trial was described in which calves fed high energy receiving rations during four weeks following arrival gained 30 pounds more than those

fed two pounds of a 40% protein supplement per head daily plus free choice grass hay for four weeks. During a subsequent standardization period to eliminate differences in fill and during a 66 day grazing period



on dry native grass the calves fed high energy receiving rations maintained their gain advantage over those fed a lower energy ration during the receiving period. Since dry native grass is deficient in nutritive value gains on such forage are poor. A trial was undertaken to study the influence of receiving energy level on subsequent gains made on wheat pasture, a higher quality forage than dry native grass.

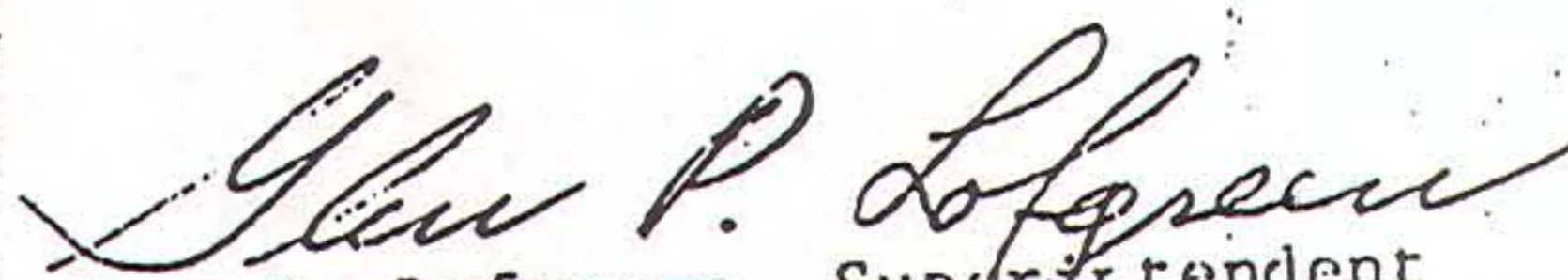
One load (125 head) of calves having a mean purchase weight of 398 pounds was shipped from South Texas to Clayton. After processing the calves received one of the following rations for four weeks: 1) a 75% concentrate milled feed provided free choice plus free choice alfalfa hay for the first week only, 2) the 75% concentrate feed plus free choice grass hay for the first week only, 3) the 75% concentrate milled feed plus grass hay for the entire four weeks, or 4) two lb. of a 40% protein supplement per head daily plus free choice grass hay for four weeks. All receiving rations provided adequate protein, minerals and vitamins while rations 1, 2 and 3 provided higher energy intakes than that achieved on ration 4. Calves on ration 4 consumed an average of only 65% the net

energy for gain consumed by those on rations 1, 2 or 3. All management factors were comparable for all calves so that receiving ration was the only variable. Following the 28 day receiving period all calves were run together on good wheat pasture from March to graze out on June 8, or 73 days of pasture.

The accompanying chart shows the weight gain made by the four groups during the receiving period and that achieved during 73 days on wheat pasture. Those fed the three higher energy rations during the receiving period not only maintained their weight advantage but increased it over those receiving the low energy intake during the first 28 days. After 28 days the calves on the 75% concentrate receiving rations had a 19 pound gain advantage over those fed the low energy ration. Following 73 days on wheat pasture this advantage had increased to 30 pounds as the high energy calves gained 2.03 lb. per head daily while the low energy calves gained 1.88 lb. per day on wheat pasture.

This study confirms the previous report in showing the good start promoted by high energy receiving rations will be maintained during subsequent periods on grass.

¹ Appreciation is expressed to Mr. Jeff Ward, Nara Visa, N.M. for supplying the calves used in this study.


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