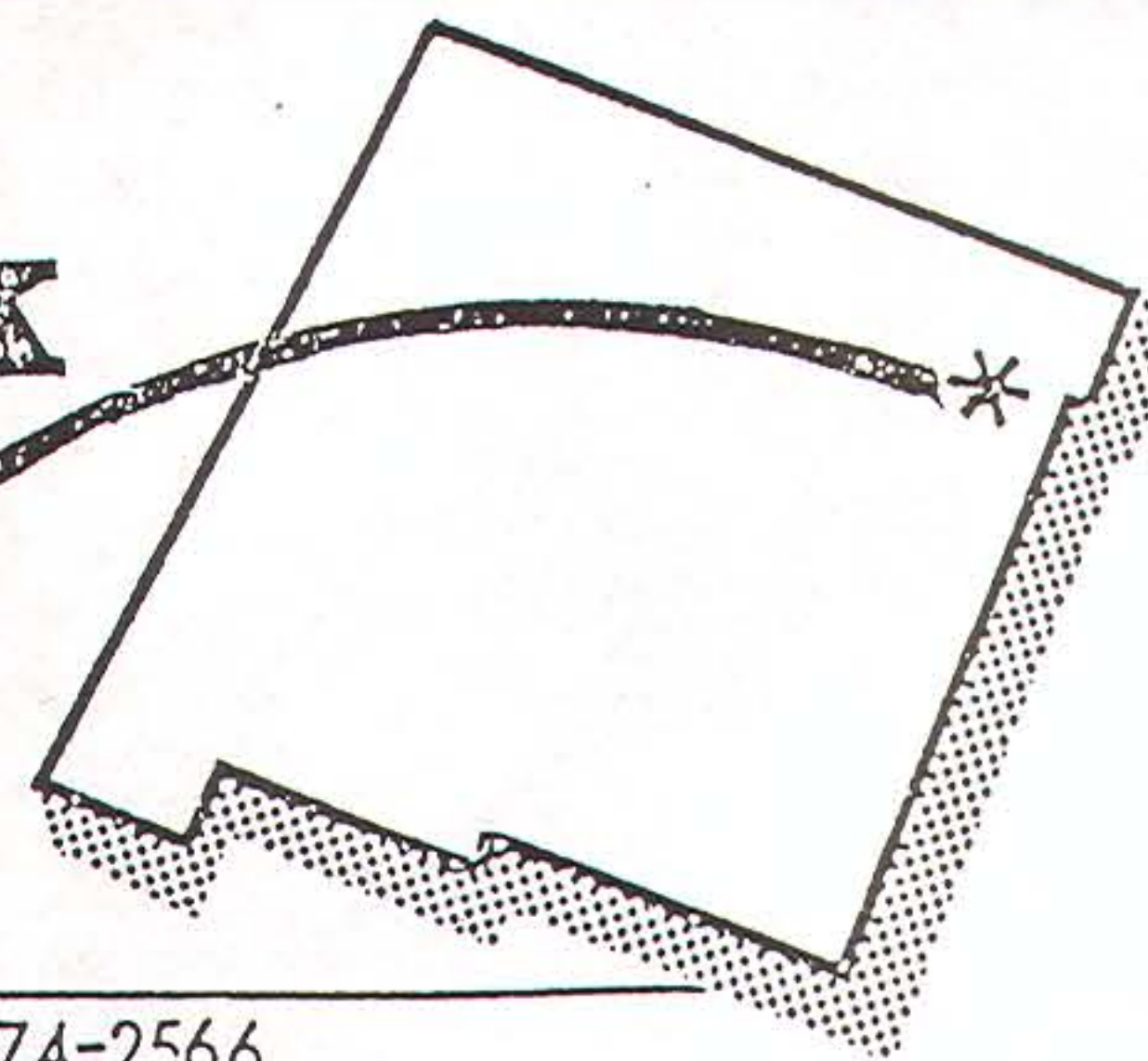




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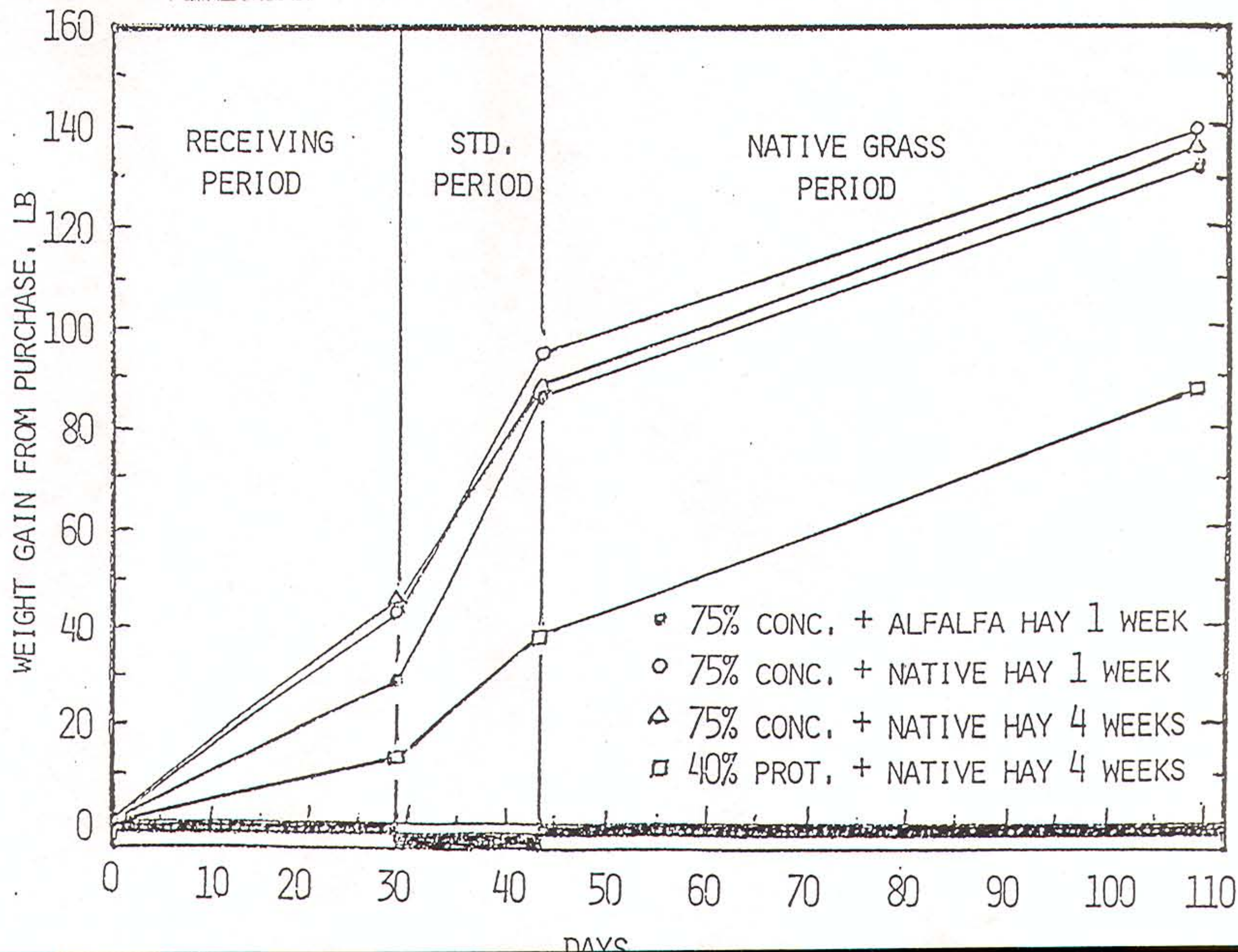
EFFECT OF RECEIVING RATION ON SUBSEQUENT GAINS ON DRY NATIVE GRASS

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A commonly asked question is, "Will calves that have gained well on a high energy receiving ration lose their weight advantage if they are placed on grass"? Work in California has shown that calves started on high energy feeds maintained their advantage when kept on feed in the feedlot. However, there is speculation that calves which have gained well in the receiving period will gain less on low energy feed than calves

gaining less during the receiving period. Since no data are available on the effect of energy level in the receiving ration on subsequent performance on grass a study was undertaken to gain some information on this problem.

Seventy calves having a mean purchase weight of 365 lb. were shipped from Florida to New Mexico. After processing, the calves were



ration: 1) 75% concentrate milled feed provided free choice for four weeks plus free choice alfalfa hay for one week, 2) 75% concentrate milled feed for four weeks plus native grass hay for one week, 3) 75% concentrate milled feed and native grass hay both fed free choice for four weeks, and 4) Two pounds per head daily of a 40% protein supplement and native grass hay for four weeks. The first three combinations supplied high energy receiving rations and adequate protein, minerals and vitamins for the rate of gain allowed by the energy level consumed. Ration 4 provided a lower energy concentration than the other three rations but also provided adequate protein, minerals and vitamins.

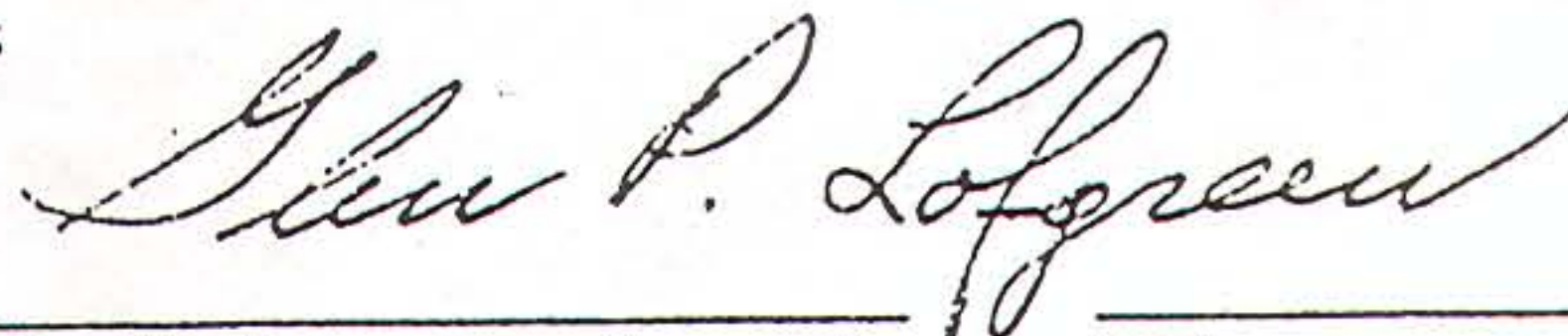
All calves were managed the same so that receiving ration was the only variable. Because of differences in hay intake differences in fill would bias the data in favor of those calves eating the lower energy ration. This bias was eliminated by placing all calves on the same ration (75% concentrate only) for two weeks following the four week receiving period. Following this standardization period the calves were placed on abundant dry native range and provided two pounds daily of a 32% natural protein block. After 66 days they were weighed and returned

three periods are shown in the accompanying graph.

The groups fed the high energy milled feed plus free choice grass hay gained the most above purchase weight during the four week receiving period (43 and 46 pounds). Those fed the grass hay plus two pounds of a 40% protein supplement gained the least (14 lb.) while those fed the high energy feed and alfalfa hay gained an intermediate amount (28 pounds). The differences existing after the receiving period were increased when the effects of fill were removed by feeding a common ration for two weeks. At the time the calves went to grass the average difference per head was 52 pounds in favor of the high energy groups.

After 66 days on native grass the difference was still 48 pounds. There were no statistically significant differences among the gains made on grass by the four groups.

This experiment provides no evidence to indicate newly arrived calves started on high energy receiving rations will lose their advantage during subsequent low energy intake such as that experienced on native grass



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