Program: Effect of Level of Corn Silage and Growth Rate of Pre-pubertal Heifers on Milk Production and Longevity

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In Partnership With:
Cornerview Farm
A&A Schouten Farm

Objective:
❖ To study the effects of pre-pubertal:
  Growth rate
  Corn silage level
on lifetime performance of dairy cattle

Materials:
❖ 2 x 2 Factorial
❖ 2 levels of corn silage (1/3, 2/3), plus haylage, high moisture corn and soybean meal, with equal levels of energy and protein
❖ 2 rates of gain (700, 1000 grams/day)
❖ 4 groups of 48 heifers, start at 4 months old, borrowed from 2 local farms

Results:
❖ Low growth treatment 728 g/day
  (4% above target of 700)
❖ High growth treatment 913 g/day
  (8.7% below target of 1000)
❖ By 10 months, 35% heifers ovulated
❖ By 12 months: 67% heifers ovulated
❖ No treatment effects
❖ Within Low CS, more in Hi Gain (81%) than in Lo Gain (56%) (P<0.05)

Conclusions:
❖ Heifers can be fed to gain within 8.5% of targeted growth rates.
❖ Corn silage level had no effect on weight gain or growth measurements (height, girth or teat length).
❖ The higher feeding rate to promote faster growth was effective on weight, height, girth and teat length.
❖ The number of days in milk in completed lactations was not affected by treatments.
❖ There was a tendency for Low Corn Silage and Low Gain Rate to have more cows left after 3 lactations.

Support Appreciated from:

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Community Benefits Include: Better way to grow heifer, effective use of corn silage and reduce reliability on alfalfa haylage