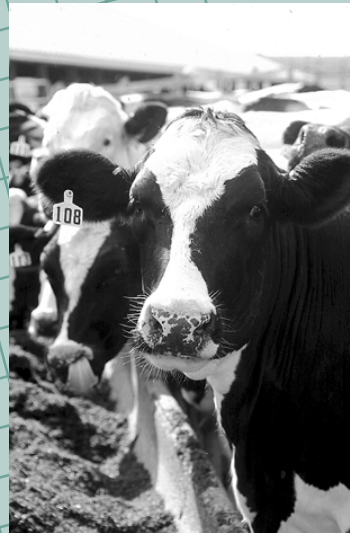


**Monitoring
Dairy Heifer**

Growth



PENNS^TATE



COLLEGE OF AGRICULTURAL SCIENCES

Monitoring Dairy Heifer Growth

INTRODUCTION

Raising dairy heifers to an adequate size and with an age at first calving between 22 and 24 months can optimize profitable milk production. This achievable goal requires proper nutrition and feeding management so heifers are large enough to breed at 13 to 15 months old. Both contract heifer growers and dairy producers who raise their own replacements should follow these breeding and calving age guidelines.

On many dairy farms, heifer management is not the most critical part of the day-to-day activities; however, chronic neglect of nutrition, feeding management, and preventative health care can lead to stunted growth. This results in heifers that calve much later than 24 months of age and that produce considerably less milk during their lifetime than those that are properly fed and well grown. Undersized heifers not only are smaller and less productive, but they also are prone to more problems at calving.

On the other hand, accelerating the growth of heifers until they become fat also reduces their lifetime milk production and longevity. Overfeeding concentrates or high-quality forages such as corn silage can cause this condition. Published research studies show that excessive energy intake (140 percent of the National Research Council's recommended amount) before breeding can decrease the rate of development of the secretory tissue in the cow's mammary gland and thereby reduce the number of alveolar cells available for milk synthesis. Feeding to achieve accelerated growth rates after breeding does not appear to hinder mammary development. Optimal secretory tissue development also can be aided by ensuring that heifers receive an adequate level of protein before breeding.

