

# Effects of Delayed Implanting on Feeder Cattle Health, Performance, and Carcass Quality

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## Introduction

The time period in which cattle are initially received into a feeding facility can be a period of intense physiological stress that renders the animal vulnerable to infection by pathogens of the bovine respiratory disease (BRD) complex. Delaying the time at which cattle are given the initial implant may be a way to decrease arrival stress and therefore positively affect health status and performance.

## Materials and Methods

High-risk feeder calves ( $n=1,601$ ;  $603 \pm 10.5$  lb;  $274 \pm 4.8$  kg) were used to examine the effects of delayed administration of the initial steroid implant on health, performance, and carcass characteristics of feedlot cattle. Control steers received a steroid implant (Revalor-XS, 20 mg estradiol and 200 mg trenbolone acetate) as part of normal processing procedures following arrival at the feedyard, and the Delayed Implant group received the same implant at 45 DOF. Cattle were allocated to

20 pens which provided 10 replications per treatment. Closeouts and health indices collected by feedyard; carcass and lesion data collected by trained personnel at the packing plant. Data were analyzed using the MIXED and GLIMMIX procedures of SAS (Version 9.1.3, SAS Institute, Cary, NC).

## Results

Delaying the initial implant reduced the percentage of railers (1.8 vs 3.3%;  $P=0.02$ ) and tended to decrease percentage morbidity (24.7 vs 28.5%;  $P=0.13$ ), carcass weight (842 vs 853 lb; 382 vs 387 kg;  $P=0.20$ ), and average yield grade (2.10 vs 2.24;  $P=0.16$ ).

## Significance

There was little health advantage to delaying the initial implant, and delaying the implant 45 days, even in high risk cattle, could be detrimental to performance and economics.