

Dietary Management Strategies that Reduce N and P Excretion in Feedlot Cattle

Several valid approaches reduce the excretion of N and P from feedlot cattle. A brief discussion regarding some of those methods is provided below.

Test feedstuffs from your operation. One of the most important steps in reducing excess N and P excretion from any operation is to determine as precisely as possible their level in the diet.

Supplement the diet with the correct source of protein. Based on ingredient analyses, balance your diet so that the basal feed ingredients, supplemental protein, and P complement each other to meet animal requirements.

Discontinue use of supplemental P in feedlot diets. When grain is the major feed ingredient in the diet, current research indicates that supplemental P is not needed.

Consider a phase-feeding program. This is especially true in finishing younger animals, where the protein requirement changes considerably over time. The phase-feeding approach of supplementing protein means using more than one finishing diet in the feedyard. Yearling steers are less of an issue since the change in N and P requirements during the feeding period remains relatively similar.

Take advantage of the type of protein in the feedstuffs. Utilizing differences in the DIP and UIP of feedstuffs to complement each other in the diet can reduce the need for supplemental protein. A good example is feeding combinations of high-moisture and dry-rolled corn based on the desired level of UIP in the diet. Additionally, many byproducts can deliver a considerable amount of DIP and/or UIP to the diet.

Evaluate your rations with available tools. Evaluate your feedlot rations with regard to the need for supplemental DIP and UIP with such tools as the NRC (1996) model. You can download this software from the following website: <[http://www.nap.edu/readingroom/books/beef model/](http://www.nap.edu/readingroom/books/beef_model/)>.