

## Ionophores for stocker calves

Ionophores improve feed efficiency and daily gains in cattle. Cattle typically exhibit a 15% increase in ADG (0.15 to 0.3 lb/d) when fed ionophores while grazing winter pastures. Ionophores work primarily by decreasing energy losses from methane, which increases ruminal propionate production. This results in improved feed efficiency. It also decreases occurrences of bloat and acidosis.

There are two ionophore antibiotics used for grazing cattle (Bovatec and Rumensin). A similar product, (Gainpro), is a non-ionophore antibiotic that improves fiber digestibility. Research conducted at the University of Georgia has shown Gainpro to be as effective as Rumensin in increasing ADG of stocker calves.

Ionophores can be fed in a free-choice mineral mix. However, consumption by individual animals can be variable. When ionophores were included in a mineral mix for stocker heifers, consumption varied from 70 to 365 g/d with 100 g/d being the target. Intake of minerals should be monitored closely, both for under and over-consumption. Bovatec is used in many mineral supplements because it has a less negative effect on intake compared with Rumensin. However, Bovatec needs to be consumed at or near recommended levels to receive any benefits of its use. If low consumption is a problem, then mixing the ionophore supplement with grain and hand-feeding is an option to consider.

Research at Oklahoma State has indicated that an ionophore supplement can increase ADG of stocker calves grazing wheat pasture by 0.45 lb/d. This supplement is a mixture of 88% grain and grain by-products, 4% molasses, 7.85% salt/mineral mix, and 0.15% Rumensin. This supplement was equally effective when fed at a rate of two pounds per day or four pounds every other day. It is also convenient way to deliver minerals and an ionophore to stocker calves. Because mineral intake is highly variable, a much more consistent intake can be achieved. Grain supplements are only needed in small amounts if pasture forage is not limiting. When supplements are fed above 0.3 to 0.5% BW, forage intake will begin to decline. This is only 2 to 3 lb/d for a 600 lb stocker calf. Stocking rates should remain the same when only a small (2 lb/d) amount of supplement is fed. If pasture availability is limiting and cattle are not gaining at least 1.0 lb/d, ionophores effectiveness will decline.

This supplement can also reduce bloat problems by ensuring the intake of an ionophore, and also by acting as a delivery mechanism for Proloxalene when severe outbreaks of bloat occur. Always allow enough bunk space for all cattle to eat at one time to prevent over and under-consumption of the supplement.

It is recommended to feed such a supplement in a pelleted form if possible. This will limit segregation of feedstuffs within the supplement and ensure a more consistent intake of all nutrients. The energy source can be almost any grain or grain-byproduct (soyhulls, corn, sorghum, wheat middlings, among others). No roughages such as hay, gin trash, peanut hulls, and cottonseed hulls should be included in the supplement.

Ionophores are included in very small (2 to 4 lb/ton) amounts in supplements. Therefore, it is best to have these supplements custom-mixed. Never feed any ionophore containing feed products to horses because ionophores are toxic to them. Feeding an ionophore in a grain-based supplement can improve profits by 20%. Ionophores increase profits especially when contract grazing on a \$/lb of gain basis.