



KEEPING AFLOAT

How to keep a cattle operation afloat when there's no water.

by Kasey Brown, associate editor

Pray for rain." It's been in many a sermon and many a song. Drought is a fact of life. Cattlemen need to know how to manage their cattle until those next rains come.

Heather Conrow, livestock specialist with the University of Missouri (MU) Extension, suggests decreasing forage needs by culling and early weaning. Get rid of open, poor-producing or mean females, about 25% of the herd.

"You don't need to feed the cow to feed the calf," Conrow says, discussing early weaning. "The rumen is ready at 75 days. Make these decisions early to stretch forage, not because the forage is already gone."

Weaning the calf decreases the cow's nutritional requirements by about 40%. This could save 6-7 pounds (lb.) of dry matter per day, depending on the cow's size.

She urges cattlemen to know how big their cows are, because nutrient requirements differ greatly between a 1,200-lb. cow and a 1,400-lb. cow.

Feed those early-weaned calves the best hay you have, she says. It should have a minimum of 60% total digestible nutrients (TDN). Limit the hay to about 5 lb. per head per day. Supplement the hay with 50% corn or soyhulls and 50% dried distillers' grains (DDGS) or corn gluten. Feed the supplement at 3 lb.-4 lb. per head per day. Add another pound of supplement per head per day every day they clean up the bunk. Do this until they reach 10 lb. per head per day if they're eating poor-quality hay,

or to 7 lb. if they're eating high-quality hay.

Make sure early-weaned calves have plenty of space at the feedbunk and ample access to open-topped water tanks. Water is more important than shade, Conrow says.

Feeding through it

Eric Bailey, MU assistant professor and state beef Extension specialist, says the two most important factors to consider when feeding through a drought are feed intake and energy.

"Our biggest problems will be overcomplicating nutrition and paralysis by analysis. Don't wait to make a management decision because you're waiting to see if it rains tomorrow," Bailey warns. "Focus on the biggest need — meeting the energy requirement. Cows need 13 to 20 pounds of TDN per day. Get your hay tested

to know how much you might need to supplement, especially if you're buying hay."

"The number one thing we can do is waste less hay," he continues. "Don't feed more than one day's worth of hay. If you feed more than that, you're allowing pickiness and wasted hay."

Bailey recommends using a hay roller that can attach to a tractor. The roller is an investment, but he says it costs less than \$1,500, so it's feasible for most operations.

"Yes, unrolling hay does involve time and labor, but when you're feeding your way through a drought, saving hay is crucial," he emphasizes.

When unrolling a bale, looks can be deceiving. More than half of the bale is in the outer 12 inches (in.), he shares. In a 5-foot-diameter round bale, 33.1% of the bale is in the outer 6 in.; 26.4% is in the next

Continued on page 42



Extended-Release Injectable Parasiticide
5% Sterile Solution
NADA 141-327, Approved by FDA for subcutaneous injection
For the Treatment and Control of Internal and External Parasites of Cattle on Pasture with
Persistent Effectiveness

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS FOR USE

LONGRANGE, when administered at the recommended dose volume of 1 mL per 110 lb (50 kg) body weight, is effective in the treatment and control of 20 species and stages of internal and external parasites of cattle:

Gastrointestinal Roundworms	Lungworms
<i>Bunostomum phlebotomum</i> – Adults and L ₄	<i>Dictyoacaulus viviparus</i> – Adults
<i>Cooperia oncophora</i> – Adults and L ₄	
<i>Cooperia punctata</i> – Adults and L ₄	
<i>Cooperia surmabada</i> – Adults and L ₄	
<i>Haemonchus placei</i> – Adults	Grubs
<i>Oesophagostomum radiatum</i> – Adults	<i>Hypoderma bovis</i>
<i>Ostertagia lyrata</i> – Adults	
<i>Ostertagia ostertagi</i> – Adults, L ₄ , and inhibited L ₄	
<i>Trichostrongylus axei</i> – Adults and L ₄	Mites
<i>Trichostrongylus colubriformis</i> – Adults	<i>Sarcoptes scabiei</i> var. <i>bovis</i>

Parasites	Durations of Persistent Effectiveness
Gastrointestinal Roundworms	
<i>Bunostomum phlebotomum</i>	150 days
<i>Cooperia oncophora</i>	100 days
<i>Cooperia punctata</i>	100 days
<i>Haemonchus placei</i>	120 days
<i>Oesophagostomum radiatum</i>	120 days
<i>Ostertagia lyrata</i>	120 days
<i>Ostertagia ostertagi</i>	120 days
<i>Trichostrongylus axei</i>	100 days
Lungworms	
<i>Dictyoacaulus viviparus</i>	150 days

DOSAGE AND ADMINISTRATION

LONGRANGE® (eprinomectin) should be given only by subcutaneous injection in front of the shoulder at the recommended dosage level of 1 mg eprinomectin per kg body weight (1 mL per 110 lb body weight).

WARNINGS AND PRECAUTIONS

Withdrawal Periods and Residue Warnings

Animals intended for human consumption must not be slaughtered within 48 days of the last treatment. This drug product is not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established for pre-ruminating calves. Do not use in calves to be processed for veal.

Animal Safety Warnings and Precautions

The product is likely to cause tissue damage at the site of injection, including possible granulomas and necrosis. These reactions have disappeared without treatment. Local tissue reaction may result in trim loss of edible tissue at slaughter. Observe cattle for injection site reactions. If injection site reactions are suspected, consult your veterinarian. This product is not for intravenous or intramuscular use. Protect product from light. LONGRANGE® (eprinomectin) has been developed specifically for use in cattle only. This product should not be used in other animal species.

When to Treat Cattle with Grubs

LONGRANGE effectively controls all stages of cattle grubs. However, proper timing of treatment is important. For the most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season.

Environmental Hazards

Not for use in cattle managed in feedlots or under intensive rotational grazing because the environmental impact has not been evaluated for these scenarios.

Other Warnings: Underdosing and/or subtherapeutic concentrations of extended-release anthelmintic products may encourage the development of parasite resistance. It is recommended that parasite resistance be monitored following the use of any anthelmintic with the use of a fecal egg count reduction test program.

TARGET ANIMAL SAFETY

Clinical studies have demonstrated the wide margin of safety of LONGRANGE® (eprinomectin). Overdosing at 3 to 5 times the recommended dose resulted in a statistically significant reduction in average weight gain when compared to the group tested at label dose. Treatment-related lesions observed in most cattle administered the product included swelling, hyperemia, or necrosis in the subcutaneous tissue of the skin. The administration of LONGRANGE at 3 times the recommended therapeutic dose had no adverse reproductive effects on beef cows at all stages of breeding or pregnancy or on their calves. Not for use in bulls, as reproductive safety testing has not been conducted in males intended for breeding or actively breeding. Not for use in calves less than 3 months of age because safety testing has not been conducted in calves less than 3 months of age.

STORAGE

Store at 77° F (25° C) with excursions between 59° and 86° F (15° and 30° C). Protect from light. Made in Canada. Manufactured for Merial, Inc., Duluth, GA, USA. The Cattle Head Logo and LONGRANGE are registered trademarks of Merial, Inc. ©2015 Merial, Inc. All rights reserved. 1050-2889-06, Rev. 2/2015, 8LON016C

KEEPING AFLOAT *continued from page 40*

6 in.; 19.9% is in the next 6 in.; 13.2% is in the next 6 in.; and 7.4% is in the inner 6 in. (see Fig. 1).

Base hay feeding on the cow's weight. Bailey suggests providing 3% of the estimated body weight per day if hay supply is ample. For a 1,400-lb. cow, that would be about 42 lb. of hay. For easy math, he rounds this to 40 lb. Bales are 10% water, so he discounts a 1,200-lb. hay bale to 1,080 lb. So, one bale will feed 27 cows for one day.

Hay below 55% TDN or 7% crude protein (CP) will need a supplement. Target 0.5 to 1.0 lb. of crude protein per day — 0.5 lb. if the cow is gestating and 1 lb. if the cow is lactating. For example, he suggests 5 lb. of a 20% protein supplement. Anything less than 20% CP is actually an energy supplement.

"This is where distillers' grains shine, because they are a source of both protein and energy. It is similar to corn in terms of energy, but also provides about 30% protein," he says.

Five to 6 lb. of an energy supplement will correct any energy deficiency, but he recommends doubling that if you are feeding straw, cornstalk bales or hulls.

Down to the wire

If you have minimal hay to feed, he recommends 10 lb. of hay per cow per day.

"That's a very safe place to start. We can go lower, but the risk of digestive issues increase," he says.

Noting that hay is getting expensive, at \$85 per bale or more, it's important to do the math to ensure maximum use. For a 1,200-lb. bale at 50% TDN and at \$140 per ton, each pound of TDN costs 16¢.

Cows need 13 lb.-20 lb. of TDN per day, so that pencils out to \$2.06 to \$3.20 per cow per

day. It is cost-effective to supplement with byproducts in this scenario. An 85% TDN byproduct supplement at \$175 per ton pencils out to 11¢ per pound of TDN, which is a 31% cost savings.

If hay is very scarce, he recommends starting with 5 lb.-6 lb. of corn per cow per day. One pound of corn replaces 2 lb. of poor-quality hay on an energy basis. Don't go above 6 lb. of corn without seeking guidance, because the risks and management requirements go up, he warns.

Do the cows still have pasture or hay to pick at? If not, he recommends another 5 lb.-6 lb. of a feed with little grain, like soyhulls, gluten pellets or dried distillers' grains. It's possible to work with a feed store to get a custom mix or use one of their products.

Byproducts might be the best option for some producers. Bailey suggests commodities priced at \$200+ per ton make much more sense than hay priced at \$85 per bale. Remember that nutrient density is key. It might be possible to get more nutrients and more consistency with byproducts than with unfamiliar hay.

Silage is a solid option, but know that 1 lb. of silage does not equal 1 lb. of hay. Hay is 90% dry matter, but silage is usually 35% dry matter. Silage offers 65% TDN. Gestating cows need to be fed about 60 lb. of silage and lactating cows need about 85 lb. if silage is the only thing they are getting, he says. Silage can be a complete feed, but keep track of salt and minerals.

Be sure to test for nitrates, because ensiling drought-stressed corn only helps reduce nitrates by up to 50%, he warns. It is not a silver bullet.

Droughts are not fun, but they can be managed. Put pencil to paper, and keep praying for rain. |

Fig. 1: Percentage in 5-foot-diameter hay bale

