



DID YOU KNOW?

Because of restrictions placed on the use of sulfa drugs by the FDA, the **ONLY** formulation approved for use in lactating dairy cattle is sulfadimethoxine.



Sulfonamide Use on the Dairy Farm

One of the most confusing medication issues is the use of sulfonamides in dairy cows. If you choose to use sulfonamides, also known as “sulfa drugs”, on your farm, be aware of the restrictions and expectations for using these drugs legally.

What are Sulfonamides?

Sulfonamides are some of the earliest used antibiotic drugs in both humans and animals. In the past, their availability and low cost made them popular options for treating many animal diseases, such as bacterial pneumonia, bacterial scours, coccidiosis and foot rot. More recently, the Food and Drug Administration (FDA) has put limitations on the use of these drugs in food animals in order to preserve their effectiveness in humans.

What uses of Sulfonamides are allowed on dairy farms?

The FDA has placed restrictions on extra-label drug use (ELDU) for food-producing animal species. Most

relevant to dairy farms is the prohibition of ELDU for all sulfonamides in adult lactating dairy cattle, even under veterinary supervision. This restriction is based on a finding that the ELDU of these drugs presents a risk to the public health, as it transfers easily into the milk. This means that ‘sulfa drugs’ can only be used exactly according to their label instructions in lactating cattle. Currently, only the approved use of sulfadimethoxine in lactating dairy cattle meets this criterion.

Can Sulfonamides be used on sheep and goat dairies?

No sulfonamide drug has an FDA approval for sheep or goats. ELDU of sulfonamides in milking sheep and goats is discouraged, but not prohibited. Dairy producers should take care to consult with their veterinarians for information on proper use and withdrawal times prior to choosing to use these drugs on their animals.

Table 1 shows a list of FDA-approved sulfonamide drugs and their approved use by cattle class.

Table 1. FDA-approved Use of Sulfonamide Drugs by Cattle Class

Sulfonamide Drug	Trade Names	Use on Lactating Cow greater than 20 months NO ELDU	Use on dairy Non-Lactating Cows and Calves	Use on Calves Intended for Veal	Approved Disease Indications
Sulfadimethoxine (injectable)	Injectable: Di-Methox 40%, Sulfamed	Only as labeled	Yes	No	BRDC, pneumonia, foot rot, calf diphtheria
Sulfadimethoxine (bolus)	Albon	Only as labeled	Yes	No	As above
Sulfadimethoxine (water additive)	Albon concentrated solution 12.5%, Di-Methox 12.5% Oral Solution, Di-Methox Soluble Powder	PROHIBITED	Yes	No	As above
Sulfamethazine (bolus)	Sustain III- Cattle Sustain III- Calf	PROHIBITED	Yes	No	BRD, BRDC, foot rot, calf diphtheria, E. coli scours
Sulfamethazine Sodium (water additive)	Sulmet Drinking Water Solution, Sulmet Soluble Powder, SMZ-Med 454 Soluble Powder	PROHIBITED	Yes	No	BRDC, pneumonia, E. Coli scours, foot rot, calf diphtheria
Sulfaquinoxaline Sodium (water additive)	Liquid Sul-Q-Nox	PROHIBITED	Yes	No	Control/treatment of coccidiosis
Potentiated Sulfonamides (sulfa drug combined with another drug such as sulfamethoxazole/ trimethoprim)	SMZ/TMP Pills	PROHIBITED	Yes, with proper veterinary oversight	No	No approved use in cattle, use must be with proper veterinary oversight

**Sulfachlorpyridazine (Vetisulid inj and Vetisulid powder) is approved for calves but no longer available*

***Sulfabromomethazine and Sulfaethoxyppyridazine have approvals for lactating dairy cattle but are not available in the USA.*

Note: Sulfabromomethazine and Sulfaethoxyppyridazine have approvals for lactating dairy cattle but are not available in the USA. Sulfachlorpyridazine (Vetisulid inj and Vetisulid powder) is approved for calves but no longer manufactured.

For additional information visit www.mda.state.mn.us/residue-prevention