

# Disaster Relief

## *Diet Supplements for Livestock: Protein, Vitamin A, and Minerals*



Most grain rations for cattle and sheep supply enough protein to maintain a satisfactory 10% to 12% level. But, in emergency situations, when you feed livestock mostly low-protein materials such as ground ear corn, grain straws, or grass straws, a protein supplement is needed.

We recommend about 1 lb of 20% to 30% protein supplement/head/day. Use cost comparisons to get the best protein supplement for your money. Compare cost per pound of protein supplied, rather than cost per ton of the supplement. Different supplements contain the following protein levels:

- Alfalfa seed screenings: 25%
- Field or cull peas: 20%
- Linseed meal: 30–36%
- Cottonseed meal: 40–47%\*
- Soybean meal: 44–49%\*

\*Level specified by manufacturer

Urea can replace part of the protein if its price is favorable. One pound of feed grade urea equals 2.62 pounds of crude protein. Never feed urea to poultry or swine. Urea in high levels is toxic to livestock. Do not feed urea at levels greater than 1% of a total ration (grain and hay) or 3% of a concentrate mix.

Give hungry livestock a fill of feed without urea before turning them onto feed that contains urea. Mix urea thoroughly with the feed, and use it with an available energy source, such as grain or molasses. Do not feed urea with roughage alone.

Molasses is occasionally an economical energy source, but it must be fed with some dry feedstuffs. Liquid molasses can be self-fed if you use a wooden float device to restrict consumption, or it can be mixed with grain at a feed mill.

### **Vitamin A**

Hay supplies most necessary Vitamin A during winter feeding. If you eliminate hay from the ration, Vitamin A supplements may be necessary. A number of stable, dry forms of Vitamin A are available commercially. You can mix these with feed, salt, or complete mineral mixes.

We suggest the following daily levels of Vitamin A:

- Bred cows or mature cattle: 20,000 I.U.
- Yearling cattle: 10,000 I.U.
- Bred ewes: 5,000 I.U.
- Milking cows: 40,000 I.U.

### **Minerals**

Removing hay from livestock rations may cause mineral deficiency. To correct this problem, supplement grain rations with a free-choice mixture of one part dicalcium phosphate and one part trace mineralized salt.

No additional salt is needed with this mixture.

Although hungry cattle may crave salt, limit the feeding of loose salt to 10 lb per animal per day.

Cattle on limited water should not be fed salt or minerals for 3 or 4 weeks, or until adequate water is available.

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Reviewed by **Carla Huston**, PhD, Associate Professor, Pathobiology and Population Medicine.



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