



Cattle Producer's Handbook

Alfalfa for Beef Cows

*Ben Bruce, State Extension Livestock Specialist
 Ron Torell, Northeast Area Livestock Specialist
 Willie Riggs, Extension Educator
 University of Nevada*

Protein and energy supplements do not need to come out of a sack. Often a more economical supplement is wrapped in twine or wire and is known as the “Queen of forages” or alfalfa hay.

Hay not meeting the dairy industry specifications may be purchased cheaper than processed supplements when comparing price on a per-pound-of-actual-nutrient basis (Table 1). A combination of home-grown hay, purchased alfalfa hay, and(or) a mineral supplement may be used to balance the nutritional needs of the cowherd during critical periods of the year.

What Is Alfalfa?

Alfalfa is a legume, a nitrogen fixing plant that extracts nitrogen from the atmosphere and incorporates it into plant proteins. Other legumes include clovers, vetches, peas, beans, and birdsfoot trefoil. Alfalfa is grown throughout the U.S. and is capable of producing over 1,800 pounds of protein per acre per year.

Alfalfa as a Protein Source

Beef producers often use the term “high quality forage” to describe a high protein, low fiber feedstuff. Table

Table 1. Average quality and price of feeds commonly available to northern Nevada beef producers.¹

| Feed | CP % | TDN % | Crude fiber % | Phos. % | Ca % | Mg % | K % | Price per ton | \$/lb protein |
|---|------|-------|---------------|---------|------|------|------|---------------|---------------|
| Alfalfa, dairy quality | 18 | 60 | 23 | 0.22 | 1.41 | 0.33 | 2.52 | \$110 | \$0.31 |
| Alfalfa, beef quality | 15 | 55 | 28 | 0.25 | 1.40 | 0.14 | 2.45 | \$85 | \$0.28 |
| Average grass hay* | 8.4 | 53 | 31.4 | 0.19 | 0.54 | 0.12 | 1.66 | \$60 | \$0.36 |
| Late cut non-fertilized grass hay* | 6.7 | 50.1 | 32.6 | 0.17 | 0.50 | 0.11 | 1.35 | \$55 | \$0.41 |
| Fertilized grass hays superior quality* | 10.1 | 55.1 | 30.9 | 0.21 | 0.45 | 0.14 | 2.33 | \$75 | \$0.37 |
| Range cube** | 18 | 80 | — | — | — | — | — | \$138 | \$0.38 |
| Wheat-mid pellet | 16 | 79 | 9.2 | 1.13 | 0.11 | 0.52 | 1.33 | \$168 | \$0.53 |
| Range block** | 13 | 72 | — | — | — | — | — | \$155 | \$0.60 |
| Molasses tubs** | 16 | 76 | 4.0 | 1.0 | 2.0 | 0.50 | 7.0 | \$380 | \$1.19 |
| Liquid molasses** | 11 | 76 | 4.0 | 1.0 | 2.0 | 0.50 | 7.0 | \$240 | \$1.09 |

*302 samples collected 1946-87 from northeastern Nevada ranches.

**Contains additional NPN sources of protein not included in table. High energy diets are required to utilize those sources of protein.

¹Reference to a company or trade names does not imply approval or endorsement.