Stretch Thin Hay Supplies Using Poor-Quality Roughage

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Much of the U.S. was in some stage of dryness or drought last year resulting in substantial forage reductions, perennial forage production in particular. Since then, dryness has not abated for most. For some it has gotten much worse, leaving many with short roughage supplies.

Most harvested perennial roughage was fairly good quality. However, yields weren't there, leaving many with the need for additional roughage. Fortunately, annual cash crops did quite well in the central U.S. last summer, so corn stover, bean stover, and cereal straw are available. These may provide opportunities to stretch roughage supplies and keep feed costs more reasonable.

The downside is cash crop residue is typically deficient in crude protein (CP) and thus will need to be supplemented into winter rations. The gap in dietary CP has typically been filled by supplementing renewable fuel by-products or grain meals. Although still available in many areas, domestic by-product and grain meal supplies have been crimped by the pandemic and other political and economic situations, making them at least double in price compared to the last several years. Although higher priced, traditional by-products such as corn distiller's grains are still a good buy for protein supplementation. At nearly 30% CP on a dry matter basis, the small amount of supplement needed in a beef cow ration to balance needs results in a fairly minimal ration cost increase. Some may find supply more troubling than cost, depending on where you live. In most cases, these products are being used to balance CP content of the diet, thus, when you look at price, it is a good idea to resist sticker shock on a per ton basis and actually calculate cost on a CP pound basis (Table 1).

Table 1. Comparison of several by-products and commercial supplements commonly used for supplemental protein in 2020 and 2021.

Feed ingredient product	CP %	2020 Cost/ton, $	2021 Cost/ton, $	2020 Cost/lb CP, $	2021 Cost/lb CP, $	2020 Cost/head/day, $	2021 Cost/head/day, $
Alfalfa hay	15	110	125	0.36	0.41	1.08	1.23
Dried distiller's grains	30	140	225	0.23	0.37	0.46	0.74
Soybean meal	46.5	290	425	0.31	0.45	0.46	0.67
Canola meal	40	NA	365	NA	0.45	NA	0.78
Sunflower meal	32	185	285	0.28	0.44	0.56	0.88
Commercial protein pellets	30	NA	700	NA	1.16	NA	2.32
Liquid protein lick	35	NA	600	NA	0.85	NA	1.27
Cooked molasses tubs	25	NA	800	NA	1.60	NA	1.60

There can be a significant price discrepancy among supplemental protein sources. Prices of these products, by-products in particular, change frequently depending on market conditions. It is typically a good idea to recalculate these prior to purchasing – whatever you decide works best for you and what you can actually get in the quantities you need. Additionally, it is always a good idea to account for hidden costs (i.e., transportation, storage, handling, feeding), adding significantly to the actual cost of the product. Thus, do not just assume the retail cost of the product is the actual cost as-fed.