

BUYING ALFALFA HAY ON THE BASIS OF A CHEMICAL ANALYSIS
FROM A DAIRYMAN'S POINT OF VIEW

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Alfalfa hay is the backbone of the feeding program on our dairy. We feel that feeding excellent quality alfalfa hay is essential in maintaining our 1973 DHIA herd average of 20,580 lb milk and 789 lb of milk fat per cow. This was the highest herd average milk production in California in 1973.

We are very careful in selecting hay to be fed to our cows. The main tool we use is the chemical test for modified crude fiber (MCF). The amount of TDN (total digestible nutrients) and digestible protein is then estimated from the modified crude fiber content. The hay is also tested for moisture percentage. Core samples are taken from at least 20 bales per hay stack in order to get a representative sample for analysis. Increasing the number of core samples up to 40 per stack increases the accuracy even further.

The standards that we set in buying our hay are as follows

	Moisture	9-11%
2	Modified crude fiber	18-22%
3	Digestible protein	15-20%
4	TDN	54-60%

The chemical test is only part of our hay-buying program. Probably just as important is the way the hay is put up. Even hay that is cut at the right stage of maturity can become poor hay if it is raked or baled when it is too dry. The leaves contain most of the protein and TDN in the hay, and excessive leaf loss during raking or baling results in poor quality hay. Hay should be dried to avoid as much bleaching as possible and should not be baled with too much moisture either. Hay baled too wet causes compaction and this results in dusty and musty hay which is unpalatable to cows.

Our whole feeding program is based around alfalfa hay. We start feeding alfalfa hay to our baby calves at about two months of age. By six months of age our calves are entirely on alfalfa hay. Our heifers are fed some silage starting at eight months but still are fed ten pounds of hay per day.

Our milking cows are fed a minimum of 15 pounds of alfalfa hay along with silage and concentrates. We feel it important to feed at least that amount of dry hay in order to get sufficient dry matter into them to satisfy their energy (TDN) and protein requirements for high milk production. The remainder of the feeds (silage and concentrates) are fed in varying amounts according to the milk production level of the different groups of cows in the herd. We feel it is important to maintain this basic level of low-fiber, high-protein hay in the ration in order to maintain high milk production from the milk cows, and a desirable growth rate for our replacement heifers. The chemical test for modified crude fiber and visual inspection of the hay are used together in identifying the kind of hay we need for our dairy herd.