



# COMMODITY NUTRIENT PROFILE

## WHOLE COTTONSEED



### DESCRIPTION

Whole Cottonseed (WCS) is a unique feed ingredient high in energy (NEL 0.90 Mcal/lb), relatively high in protein (21.1%), high in fiber (31.2% ADF) and high in fat (18.4%). These characteristics enable dairymen to increase the energy density of a ration while maintaining adequate fiber intake. It is not uncommon to observe increases of 0.2 - 0.3 in milk fat test, and two or more pounds of milk production within a week or two of initiating the feeding of WCS.

### USE AND APPLICATION

WCS nutritional characteristics allow dairymen the opportunity to increase energy density of a ration while maintaining adequate fiber intake. High producing cows are short on energy and adequate fiber. The fiber in WCS will typically increase milk fat test and may help improve rumen function.

Feeding additional fat from WCS will increase milk yield in energy deficient situations. The fat in WCS is protected from rumen degradation; therefore, it does not interfere with fiber digestion like free oils and fats. When energy is provided as fat, less heat of fermentation occurs (lower heat increment) helping cows stay cooler. Therefore, WCS, with its high fat content, is even more valuable in the summer than during cooler weather.

The recommended level of WCS is from 4 to 7 pounds daily depending on nutritional requirements of the cow. The greatest response is usually observed in high producing cows during the first 100 days of lactation, in hot summer months and when the ration is low in fiber. Cottonseed is palatable and readily consumed by cattle. It is recommended that WCS be fed in grain mixes or in blended or TMR rations. Variability of intake may result if top dressed.

### STORAGE AND HANDLING

Whole Cottonseed should be stored on a concrete pad or commodity shed and protected from rain and other forms of moisture. WCS by itself, does not flow well or work well in augers; however, it can be mixed with silage or grain in a conventional auger feeding system. WCS is best handled with a front-end loader. Care should be taken to minimize seed breakage during unloading. WCS will absorb water if handled improperly. If not adequately dried, cottonseed has the potential to mold. Cottonseed from plants exposed to drought conditions could be a source of aflatoxin as well.

### TYPICAL ANALYSIS

	DMB	As Fed
Dry Matter	100.0%	92.0%
Crude Protein	23.0%	21.1%
Fat	20.0%	18.4%
Crude Fiber	28.0%	25.7%
ADF	34.0%	31.2%
NDF	44.0%	40.4%
Calcium	0.21%	0.19%
Phosphorus	0.64%	0.58%
NE <sub>L</sub> (Rum)	0.98 Mcal/lb	0.90 Mcal/lb
NE <sub>m</sub> (Rum)	1.06 Mcal/lb	0.97 Mcal/lb
NE <sub>g</sub> (Rum)	0.72 Mcal/lb	0.66 Mcal/lb
NFC	44.0 Mcal/lb	40.4 Mcal/lb

\* Listed data are average values only and not considered as guarantees, expressed, or implied, nor as a condition of sale. For guaranteed specifications refer to feed label.



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