



# COMMODITY NUTRIENT PROFILE

## CORN DISTILLERS SOLUBLES

### DESCRIPTION

Corn Distillers Solubles are obtained after the removal of ethyl alcohol by distillation from the yeast fermentation of corn grain by condensing the thin stillage fraction to a semisolid liquid. Most distilleries add a majority of the liquid solubles to the dried distiller's grains. The feed is rich in cereal and residual yeast proteins, energy, minerals, vitamins and growth factors. Fermentation of the starch, which is about 2/3 of the weight of cereal grains, results in a threefold concentration of non-starches such as proteins, fats, mineral and vitamins in the residual mash. In addition to these nutrients, proteins, vitamins and growth factors are further synthesized by the growing yeast cells during the fermentative process.

### USE AND APPLICATION

CDS is an excellent protein and energy source for all ruminants, and can readily comprise 20-30% of the total ration dry matter. In the rumen, Digestible Intake Proteins (DIP) are degraded by microbes, while the Undegradable Intake Protein (UIP) remains intact and "by-passes", becoming available for digestion and absorption in the lower tract. Protein in CDS is a natural protein and recognized as a feedstuff with one of the higher proportions of by-pass protein. CDS is also an excellent source of energy and other essential nutrients. Like all feedstuffs, CDS should be properly incorporated into a ration.

### STORAGE AND HANDLING

Dependent on user requirements, CDS is a 30% DM liquid, and should be stored in a clean sanitary tank, protected as practical from temperature extremes. The liquid can be moved by pumping or gravity flow where conditions permit. Ideally CDS should be fed to animals in a TMR (ruminants) to ensure proper and uniform intake.

### TYPICAL ANALYSIS

|                 | DMB          | As Fed       |
|-----------------|--------------|--------------|
| Dry Matter      | 100.0%       | 30.0%        |
| Crude Protein   | 30.0%        | 9.0%         |
| Fat             | 12.0%        | 3.6%         |
| NFC             | 21.8%        | 6.5%         |
| ADF             | 16.0%        | 4.8%         |
| NDF             | 43.0%        | 12.9%        |
| SIP, % of CP    | 15.0%        | 15.0%        |
| UIP, % of CP    | 50.0%        | 50.0%        |
| Calcium         | 0.10%        | 0.03%        |
| Phosphorus      | 0.40%        | 0.12%        |
| TDN             | 84.0%        | 25.0%        |
| NE <sub>L</sub> | 0.93 Mcal/lb | 0.25 Mcal/lb |
| NE <sub>m</sub> | 0.90 Mcal/lb | 0.07 Mcal/lb |
| NE <sub>g</sub> | 0.60 Mcal/lb | 0.08 Mcal/lb |
| DE              | 1.68 Mcal/lb | 0.50 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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