



**BYPASS PROTEIN**

## EVALUATE CLIENTS' BYPASS PROTEIN OPTIONS

The market for rumen undegradable protein continues to grow complicated. Clients must look at a source's overall profile—not simple per-ton price. Here's a synopsis of the pros and cons.

Ingredient	Pro	Con
Meat & bone meal	Fair source of lysine and methionine	Not palatable; Unpredictable supply status pending FDA actions.
Blood meal	Good lysine source; high CP level	Expensive; Not highly palatable; Poor methionine source; Unpredictable supply status pending FDA actions.
Dried distillers grains	Good source of methionine; Highly palatable; Non-animal protein source; Supplies likely to increase	Highly variable in protein, fat, texture and mineral content; Poor lysine source; Potential to suppress butterfat; Potential for heat damage during processing; Not compatible with high-corn diets.
Fish meal	Good amino-acid balance and supply of limited AAs	High price; Not highly palatable; Should be limited to 1 to 1.5 pounds daily; Potential to suppress butterfat; Must be gradually introduced.
Roasted whole beans	Palatable; Source of additional fat plus protein; Non-animal protein source; High lysine	Must be rolled or cracked before use; High fat levels reduce flexibility of use with other fat sources; High feeding rates can depress milkfat; Rumen degradability is variable.

Ingredient	% Rumen undegradable protein <sup>1</sup>	Rumen undegradable protein digestibility <sup>2</sup>	Notes

*Electronic Nutrition Plus* provides the dealer partners of West Central® regular training tips to improve your nutritional consulting for dairy clients. Our goal: to address the current challenges you encounter every day in this rapidly changing industry and give you the answers you need to guide clients. Have a question or specific topic you need an answer on? [Click here](#) to contact us—be sure to give us your feedback.

Look for *Electronic Nutrition Plus* in your inbox near the middle of every other month (next: Dec. 15).

### IN THIS ISSUE:

- ❖ Evaluating bypass protein options? Consider these pros and cons of the common sources.
- ❖ SoyPLUS® gives you a fat source for client rations without the worries that accompany “treated” bypass soybean meals and animal byproducts.

Meat & bone meal	58%	60%	Pending FDA regulatory changes may threaten cost-effectiveness due to facility requirements.
Blood meal	78%	65% to 80% depending on type	FDA regulatory changes could eventually prohibit blood meal from cattle feed.
Dried distillers grains	57%	80%	Relatively high coefficients of variation for protein may decrease when coming from more modern plants; however, fiber and mineral levels often vary unpredictably.
Fish meal	66% (Menhaden)	90%	Several types and species available, resulting in high variability in crude protein, depending on source.
Roasted whole beans	39%	85%	

1 As a percent of crude protein, calculated based on DMI at 4 percent of bodyweight and forage proportion of DMI at 50 percent.

2 As a percent of RUP.

**FAT SOURCE**

## FAT WITHOUT THE WORRIES

SoyPLUS gives you a fat source for client rations without the worries that accompany “treated” bypass soybean meals and animal byproducts. Here's why:

- Our process makes the fat in SoyPLUS release slowly. You thus avoid the problems associated with the rapid lypolysis that often accompanies bypass protein sources like distillers grains and roasted soybeans. When those feedstuffs—which contribute to already high levels of polyunsaturated fatty acids present in dairy-ration grains and forages—create a high level of C18:1 T fatty acids in the rumen, an acidotic rumen can fail to saturate those fatty acids. Once those polyunsaturated fatty acids escape the rumen, they contribute to butterfat suppression in the mammary gland. In contrast, SoyPLUS provides an excellent source of bypass amino acids while avoiding significant quantities of the C18:1 T fatty acids that suppress butterfat production.
- All-natural SoyPLUS is manufactured using a combination of heat and pressure to remove as much oil as possible. Hexane or other chemicals are never used to harvest the oil, leaving the remaining fat an integral part of SoyPLUS.
- The fat in SoyPLUS—determined to be around 30 percent bypass—supplies

linoleic and linolenic long-chain fatty acids to the small intestine. Evidence shows these fatty acids may benefit reproduction.

- The 7 percent fat on a dry-matter basis in SoyPLUS allows you to reduce the amount of supplemental fat needed, lowering ration costs by 2 to 5 cents per head per day when compared to the low fat “treated” bypass soybean meals.

You can learn more about SoyPLUS by going to the [SoyPLUS Web site](#).

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