Numerous attempts have been made over the years to control the ruminal release of urea by combining urea with starch molasses, cellulose, or oils. In 2005, Alltech Inc. developed Optigen®. Optigen® is a controlled-release urea product that involves coating urea prills with vegetable oil.

Researchers at the University of Wisconsin recently conducted a study to determine the effect of Optigen® as a source of non-protein nitrogen on milk yield, milk composition, and profitability in commercial Wisconsin dairy herds. Diets were formulated to contain the same amount of nitrogen when substituting soybean meal for Optigen® and adding to the diet either corn grain or corn silage.

Here are the main results:

- Optigen fed at 114 grams per day per cow was an effective partial substitute for soybean meal as a source of rumen degradable protein.

- Milk yield was greater (>1.1 lb/cow per day) when commercial dairy herds were fed Optigen® than when they were not fed Optigen®.

- The use of Optigen® will improve the income over feed cost in most of the cases, except when milk and soybean meal are priced very low.

- The use of Optigen® will have more favorable income over feed cost when corn grain, corn silage, and Optigen are low priced and when milk and soybean meal are high priced.

- You can determine whether Optigen is a viable option for your farm specific conditions by using the Optigen® Evaluator available at: DairyMGT.uwex.edu Tools.

Excerpt from: