

## **DDGs AS FERTILIZERS FOR HIGH-VALUE HORTICULTURAL CROPS**

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Ethanol production using corn as the primary feedstock is rapidly expanding in the U.S. (>125%). To help the industry become more profitable, the development of value-added uses for byproducts is essential.

Corn is prepared for ethanol fermentation by either wet milling or dry milling. Due to the lower capital costs of dry milling plants, plants currently under construction in the U.S. cornbelt are of this type. In the conventional dry milling process, whole corn is ground and mixed with water to produce a slurry, which is subsequently cooked, liquified, saccharified and fermented to produce ethanol. The remaining non-fermentables (germ, fiber) are recovered as a co-product termed dried distiller's grains (DDGs), which are used almost exclusively as animal feed. We have shown through our research that DDGs are an excellent organic fertilizer for high-value crops such as turfgrasses and tomatoes, and additionally exhibit herbicidal activity against weeds in established turfgrasses.

As the price of DDGs as animal feed is typically less than \$125/ton, the potential market value of DDGs as a fertilizer can be expected to be at least ten-fold higher.

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