GAINESVILLE — A turf herbicide designed to reduce the danger of groundwater contamination has been invented and patented by a researcher with the University of Florida’s Institute of Food and Agricultural Sciences (IFAS).

The herbicide will control weeds in lawns, golf greens and other grassy areas. It will be marketed under the “Premier” trademark by the Ciba-Geigy Corporation, Greensboro, North Carolina, as soon as the product’s federal registration is approved by the Environmental Protection Agency (EPA).

Dr. Merrill Wilcox, professor in the IFAS Agronomy Department who synthesized the chemical compound, has assigned patent rights for the new product to the University of Florida, which will receive royalties from sales of the chemical.

Wilcox, who is licensed to practice patent law, says EPA approval is the only remaining obstacle to getting the product ready for the commercial market. He hopes EPA will clear the product within the next year.

“We’re very confident EPA will look favorably on this herbicide because of its low toxicity and the fact it will be for a non-food use. The water solubility of this chemical is so low (18 parts per billion) that there will be no danger of ground water contamination in areas like Florida where chemicals tend to move rapidly through the soil profile,” Wilcox explains.

Wilcox says the product is also being evaluated for weed control in non-bearing citrus where it also shows considerable promise.

“The extremely low water solubility of Premiere will protect sensitive Florida aquifers which are often very easily recharged from the surface in citrus soils such as those on the ridge,” he explains.

“When it comes to developing and actually marketing a new pesticide, only one in 18,000 compounds ever makes it from the laboratory through the lengthy and complicated efficacy and regulatory process all the way to the commercial marketplace. For this reason, it’s easy to see why this type of research is often described as being ‘high risk’ with little chance for return on investment.

“In this case, however, it looks like our research effort over the past seven years will pay off, resulting in a commercially viable product for a rapidly growing segment of the worldwide herbicide market. The market for controlling weeds in turf grass is second only to that for controlling weeds in corn,” the IFAS agronomist explains.