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## **The future of perennial weed control**

D. L. WYSE

*Department of Agronomy and Plant Genetics, University of Minnesota, St Paul, Minnesota 55108.*

The direction of weed science research has been influenced greatly by a single development, the introduction of highly effective herbicides into the production of all major crops produced in the world. The impact of this technological development has been so dominating that weed science is currently perceived by many to be the science of herbicides rather than the science of weeds and their interaction with activities deemed beneficial by society. Weed science research can be separated into two major categories. The first is weed control science and technology research, which includes chemicals, tillage, biological control and other methods of weed control. The second is weed science principles research, which is primarily weed biology and weed ecology research. A high percentage of weed science effort has been devoted to the development and support of weed control methods. The early research on mechanical weed control gave way to an emphasis on chemical weed control research. Research in chemical weed control technology has received most of the resources available for weed science research over the last 25 years, with only a limited emphasis on biocontrol. Weed science principle research is needed to provide the basic knowledge needed to understand weed problems. This includes research on weed biology and ecology that would lead to the development of the basic principles needed to develop new weed control practices and improve the weed control practices that are already in place.