WEED SCIENCE: ARE WE ACHIEVING AS MUCH AS WE COULD? Roger Cousens, Professor of Crop Science and Head, School of Resource Management, The University of Melbourne, Victoria 3010, Australia

Comparisons of recent weed science papers and those from 10 or even 20 years ago indicate that we have not progressed very far. Although our work is technically excellent, we are still asking the same questions, using mostly the same, phenomenological, approaches. Few studies pose hypotheses or have objectives of generating understanding. It is argued that understanding, and therefore advancement in weed science, will come more rapidly from process-driven research, making use of the knowledge already generated from previous studies. Examples to support this view are presented from research on weed-crop competition, in particular on competitive crop cultivars, and on spatial pattern in weed populations.