

CWSS, Weed Science, and the Short-Handled Hoe

Carl E. Bell
President, California Weed Science Society

The theme of the 60th conference of the California Weed Science Society is “Everyone benefits from weed control”. I applaud our Vice-President and Program Chair Stephen Colbert for coming up with this theme; in my opinion it is way past time we said this loud and clear. Our general session speakers are presenting the case quite well that there is an economic return on investing in weed control. One of our speakers, Leonard Gianessi, published an excellent paper in the journal *Weed Technology* in 2007 (volume 21, pages 559-566) that documents much of the information on this subject. I want to make the case, however, for the value of weed science as an important and essential contributor to the theme of the conference and I also want to expand the scope of the theme beyond economics.

At the third California Weed Conference (that used to be our name) in 1951, Paul Sharp, Director of the University of California Agricultural Experiment Station cited 20 years of UC research on weed control. Many of these studies were concerned with the development of selective herbicides; chemicals that could be used to kill weeds in crops without hurting the crop. This may seem routine today, but it was not then when the only truly selective herbicide was 2,4-D. By the 20th conference in 1968, 26 scientists from government, industry, and the universities discussed the use of a large variety of herbicides for weed control in field crops, vegetables, orchards and vineyards, rangeland, along utility corridors, and for noxious weed eradication. At the 30th conference, held here in Monterey and presided over by Floyd Colbert as President (our Program Chair’s father), 32 talks were presented by this mix of government, industry and university scientists and weed control practitioners. Every California Weed Conference, from the first one in 1949 to our 60th meeting today, has brought the audience the latest and the most reliable information on weed control. If you add it up, scientists have spoken to members of CWSS about 2500 times for 900 hours on how to control weeds in all of the variety of situations that weeds cause problems throughout this state. In addition, the third edition of our textbook, *Principles of Weed Control* has over 70 authors and contributors.

In addition to the value of the science benefiting weed control practices and the economic benefits of weed control for society, there is also an important social aspect to what we do, and it relates to the hoe. The ceremonial Robbins Short-Handled Hoe was presented to UC Davis Professor W.W. Robbins at the third conference in 1951 in recognition of his many contributions to CWSS. Walter Ball, with the CA Department of Agriculture, had been given the hoe by Dr. Robbins’ widow after his death and established the tradition of passing this hoe down to the current President. In his address to the conference, Walter Ball, speaking about Dr. Robbins said, “In his many talks before farmers he often would bring out the hoe and display it as the time honored tool; that even in his day of magic chemicals, was still the major weapon in the fight against weeds.”

From the 1900’s through the 1960’s, short-handled hoes were the most important tool used to weed vegetables and other row crops like cotton and sugarbeets. Farmers felt

that the labor crews worked faster and more accurately if they were closer to the crop. But extended use of short-handled hoes caused permanent lower back injury and these hoes became a rallying cause for farmworkers, especially union members, of their mistreatment. Short handled hoes were banned in California in 1975 by the CA Industrial Safety Board; since then only long-handled hoes are allowed. Fortunately for California agriculture, selective weed control in crops with herbicides was well established by this time. Again, the weed scientists with industry, government, and universities had done the laboratory and field research to develop these herbicide practices. And they typically delivered their information at the California Weed Conference.

The short-handled hoe is still viewed negatively by farmworkers and the groups that support them. At the 59th conference the question was asked, “Why does CWSS have a short-handled hoe as its symbol?” As discussed earlier, it was given to Dr. Robbins to signify his work ethic and dedication to advancing weed control. It is passed on as a reminder of the importance of our endeavors. I personally feel that it is also a symbol of triumph for weed science and weed control in California that the short-handled hoe is no longer needed in our agricultural fields. It may be that we decide as an organization to drop the use of the short-handled hoe as our logo someday because it is no longer appropriate; but I doubt if it will ever be abandoned as our Presidential symbol. I feel honored to have had the hoe in my home for the past year and I feel privileged to pass it to Stephen Colbert.