MAKING COMMERCIAL WEED CONTROL TRIALS RELEVANT TO GROWER AUDIENCES.

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With the number of weed control programs available, finding programs that are effective, low-cost, and high yielding can be difficult for growers. In 2004 and 2005, field trials were conducted to compare weed control, crop injury, yield, and economic returns of dominant weed control programs being marketed to Michigan growers. Each year representatives from the major herbicide manufacturing companies were asked to submit up to four commercial weed control programs for use in corn and soybean. Company representatives were given the soil types and weed infestation histories of the sites where the studies were going to be conducted. The programs could be preemergence (PRE), PRE followed by postemergence (POST), or total POST and had to consist of herbicides that were registered for use in Michigan. Treatments could be selected for application on either glyphosate-resistant or conventional crops and company representatives were asked to specify the appropriate herbicide formulations, recommended additives (trade names), applications rates, and any special application timing instructions (i.e. weeds 2 inches in height). Field trials following the weed control programs outlined by the companies were then conducted. The total cost of each program was calculated by estimating the following: (1) custom application fees, (2) additional seed costs (if glyphosate-resistant treatment), and (3) the cost of the herbicides and additives. The trials were evaluated for crop injury and weed control, and plots were harvested at the end of the season for yield. With the harvest data, a gross margin analysis was performed for each weed control program. These trials were highlighted at the Michigan State University Weed Control Tours in 2004 and 2005. At these tours growers, consultants, agribusiness personnel, and extension educators were allowed to evaluate the programs for themselves and the cost of each program was included on the field tour signs. Special tours were also arranged with a number of groups to view these trials in 2005. Results including the economic analysis of these trials were presented to over 1,500 people at 15 different extension meetings in 2005 and information from the 2005 trials will be presented during the 2006 extension programming season. Results from these studies were also summarized in printed form and were distributed to growers, extension offices, and retail outlets and were made available on the world-wide-web. Grower reactions about these trials were extremely favorable and they viewed these trials as a valuable opportunity to compare efficacy and economic returns of several weed control programs that they could potentially use on their farms.

2005 North Central Weed Science Proceedings 60:216.