

CROP TOLERANCE OF TOMATOES, SNAP BEANS AND CUCUMBERS TO SANDEA AND TARGA. David E. Hillger, Kevin D. Gibson and Stephen C. Weller, Graduate Research Assistant, Assistant Professor, and Professor, Purdue University, West Lafayette, IN 47907.

Weed control remains a major pest control challenge in U.S. vegetable production. Effective management systems must include a balanced program of scouting, cultural, mechanical, and chemical weed control techniques. Sandea (halosulfuron-methyl), an ALS enzyme inhibiting herbicide, is effective on many large-seeded broadleaf and sedge weeds. When applied preemergence and postemergence, it controls common cocklebur, corn spurry, galinsoga, smartweed spp., wild mustard, nutsedge spp., pigweed spp., ragweed spp., common sunflower, and velvetleaf. Halosulfuron-methyl has been registered for several years for use in field corn and turf, and has recently been approved for use as a preemergence and postemergence herbicide for many vegetables including: tomatoes, cucumbers, cucurbits, snap beans, asparagus, dry beans, sweet corn, and for application between rows in gourd, eggplant, tomatillo, and pepper. Targa, (quizalofop-P-ethyl) is an ACCase enzyme inhibitor that controls annual and perennial grasses in canola, crambe, cotton, dry beans, dry and succulent peas, lentils, mint (spearmint and peppermint), snap beans, soybeans, sugar beets, and non-crop areas. In these experiments, Sandea was applied in tomatoes, snap beans, and cucumbers and provided excellent pigweed, velvetleaf, and lambsquarters control when applied preemergence. Good postemergence control of pigweed, velvetleaf, and morningglory spp. was obtained and there was only a temporary yellowing (3-5 days) of the growing regions. Sandea did not control grass weeds with either the preemergence or postemergence application. In a vegetable field where grass weeds are present, an herbicide is needed to supplement Sandea for control of those species. Targa provided excellent annual grass control with no observed crop injury in tomatoes and snap beans when applied postemergence in combination with a preemergence application of Sandea. Targa offers additional flexibility for excellent postemergence grass control without a measurable yield loss and can compliment broadleaf herbicides for broader spectrum weed control.