

WEED MANAGEMENT IN ORGANIC PROCESSING VEGETABLES. Jed B. Colquhoun and Richard A. Rittmeyer, Extension Weed Specialist and Research Specialist, Department of Horticulture, University of Wisconsin-Madison, Madison, WI 53706.

The recent expansion of organic foods in major retail markets has stimulated an interest in organic processing vegetables, yet the feasibility of large-scale production is unknown. Weed management is often the most costly input in small-scale organic vegetable production. The objective of this study was to optimize practical weed management strategies in organic snap bean and sweet corn grown for processing. Weed management programs included combinations of stale seedbed, rotary hoeing, conventional row-crop cultivation and hand-weeding compared to a conventional herbicide plus a single row-crop cultivation treatment. In snap bean, weed biomass in the crop row was similar to the conventional program where row-crop cultivation (one or three cultivations) was used with or without pre-emergence rotary hoeing or stale seedbed. Between-row weed control in the organic programs was greatest when snap beans were cultivated two or three times. Snap bean yield and crop value (production value minus weed control cost) were similar to the conventional weed management program where two or three row-crop cultivations were used or where pre-emergence rotary hoeing was followed by one row-crop cultivation. Organic weed management in sweet corn was more challenging in part because of the lack of early-season crop competitiveness with weeds and the longer crop season relative to snap bean. Sweet corn yield and crop value were similar to the conventional weed management program only where three row-crop cultivations were used or where two row-crop cultivations were followed by hand-weeding.