

Comparison of herbicides for weed control in zucchini (*Cucurbita pepo* L.)

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Abstract

Zucchini (*Cucurbita pepo* L.) is an emerging crop with high potential as an export produce and for local consumption in the local delicatessen and hotel markets of the Dominican Republic. Production techniques need to be refined and adapted to local conditions. One of the main biological limitations for production is weed control. A study was conducted in San Cristóbal, Dominican Republic, to compare the utilization of several herbicides for the control of common weeds in zucchini in the Dominican lowlands. 'Spineless Beauty' zucchini was direct seeded in soil beds without mulching. Treatments were naptalam (3.5 kg a.i./ha pre-emergence), pendimethalin (280 g a.i./ha pre-plant incorporated), clomazone (480 g a.i./ha pre-plant incorporated), metolachlor (1.12 kg a.i./ha pre-emergence), bensulide (5.6 kg a.i./ha pre-plant incorporated), ethalfluraline (900 g a.i./ha pre-emergence), halosulfuron (30 g a.i./ha pre-emergence), ethalfluraline (900 g a.i./ha) + clomazone (480 g a.i./ha) pre-plant incorporated, and a no-weeding check. The prevalent weeds were *Echinochloa colona*, *Portulaca oleracea*, *Boheravia erecta*, *Cleome viscosa* and *Cyperus rotundus*. Variables measured were crop plant height, dry weight, fruit number and yield, as well as weed height, density and dry weight by species. Results were submitted to analysis of variance and, when appropriated, separation of means. Best overall weed control was achieved when using ethalfluraline+clomazone. Good weed control was obtained when utilizing either ethalfluraline, halosulfuron, pendimethaline, or clomazone.

Key words: *Cucurbita pepo* L., weed control, herbicides.

Palabras clave: malezas, herbicidas, amoz, gramíneas, cyperáceas.

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