



## Research Paper

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# Effect of weed management practices on weed control and nutrient uptake in onion (*Allium cepa* L.)

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**ABSTRACT :** Three herbicides were evaluated for weed control in onion at Main Agriculture Research Station, Raichur Karnataka, India. The study revealed that effective weed control was under oxyfluorfen 0.26 kg a.i./ha with hand weeding (30 DAT) which was next to weed free check, followed by oxyfluorfen 0.26 kg a.i./ha + oxyfluorfen 0.26 kg a.i./ha (30 DAT) at all stages of crop growth. The same treatments showed higher weed control efficiency (97.11%) and (96.66%), respectively which were next to weed free check (100%). These two treatments also indicated lower weed index of 3.57 % and 33.48 %, respectively which were next to weed free check (0.00 %). The significantly higher weed growth at all stage of crop growth recorded in unweeded control which indicated lower weed control efficiency and higher weed index and was closely followed by treatment with one hand weeding at 30 DAT, while significantly reduced nutrient uptake by weeds 2.20 kg N, 0.50 kg P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O 0.80 and 6.20 kg N, 0.90 kg P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O 2.15 per hectare, respectively were recorded in treatments weed free check (T<sub>7</sub>) and oxyfluorfen 0.26 kg a.i. per hectare with one hand weeding at 30 DAT (T<sub>6</sub>). Whereas significantly higher nutrient uptake by plants 51.01 kg N, 9.80 kg P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O 30.70 and 1.61 kg S and 50.33 kg N, 9.30 kg P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O 29.89 and 1.10 kg S per hectare, respectively recorded in these same treatments, treatment (T<sub>7</sub>) was at par with (T<sub>6</sub>) regarding the plant nutrient uptake.

**KEY WORDS :** Herbicides, Onion, Weed control

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