

5-AMINOLEVULINIC ACID EFFECTS ON SQUASH, CUCUMBER, AND BELL PEPPER YIELD

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Field experiments were conducted to determine the effect of 5-aminolevulinic acid hydrochloride (5-ALA) on the yield of bell pepper, summer squash, and cucumber. 5-ALA (0, 3, 6, 9, 12, 15 mg·L⁻¹) was sprayed on the crop canopies once (1 day after the beginning of flowering), two times (1 and 7 days after the beginning of flowering) or three times (1, 7, and 14 days after the beginning of flowering). Regardless of ALAN rate, one application did not affect yield in any of the crops, as compared to non-treated controls. When 5-ALA was applied two or three times at 12-15 mg·L⁻¹, squash and cucumber yields were significantly higher than in control plants. In bell pepper, two applications of 5-ALA did not enhance yield, but three applications at 12-15 mg·L⁻¹ resulted in yields significantly higher than in control plants.