A PRELIMINARY STUDY ON THE GROWTH, FLOWERING AND FRUITING OF HYDROPONICALLY GROWN TOMATO (*Lycopersicon esculentum* Mill. c.v. 'Panagulan') UNDER VARYING LEVELS OF NITROGEN AND POTASSIUM

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The study was conducted to evaluate the growth and productivity of tomato plant under varying levels of nitrogen and potassium.

Month old "Panagulan" tomato seedlings were grown in liquid solution of eight (8) treatment combinations of nitrogen (100 and 200 ppm) and potassium (121.8, 150, 200, and 250 ppm) using the noncirculating hydroponics system designed by Asean Vegetables Research Development Center (AVRDC).

The different nitrogen-potassium combinations did not significantly affect vegetative growth. However, treatments consisting of extreme nitrogen and potassium ratio (100 N, 200 K and 200 N, 100 K) seem to promote fruit set and yield. A number of abnormalities in reproductive development were observed such as modified inflorescence, extended flowering stage, longer fruit maturation and low percent fruit set.

It is possible that the optimum nitrogen-potassium combination for "Panagulan" is beyond the range tested in the study. So, further study on nitrogen-potassium effects on tomato is hereby recommended.