

## DISCUSSION

In normal nursery practice many seeds are exposed to water, hot water, and even boiling water soaks or pretreatments. It is obvious that water has an important part in seed germination but it is not clear what role if any the heat may have in conjunction with the water. Microwaves are a means of applying precise doses of heat to seeds in a very manageable and reproducible manner. It has been suggested by Deno (1993) and others that heat is causing a physical change in the seed coat which then in turn allows for the entrance of water to facilitate germination. Perhaps the role of heat in seed germination is more than a merely physical treatment. It is possible that applied heat is having an effect upon enzyme action, the elimination of specific germination inhibitors, or some other activity such as the turning on of a specific genes that promote germination.

The results presented here are merely preliminary and are too early to demonstrate a specific trend. Also, it should be noted that different plant taxa respond differently to the same microwave treatment. Note the fact that *Lathyrus* will tolerate a higher dosage of microwaves than will *Eschscholzia* and *Leucanthemum* and that *Leucanthemum* will tolerate higher levels of radiation than *Eschscholzia* (Fig. 1).

## LITERATURE CITED

Deno, N. 1993. Seed germination, theory and practice. State College, Pennsylvania

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## An Aid to Plant Propagation and More

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V-trays with their aerated inverted V's can be used for the germination of seedlings and the rooting of cuttings in horticulture, forestry, and by the gardening public with great satisfaction.

The aerated inverted V's produce a very vigorous and fibrous root system. There is a good exchange of air in the root zone which gives the plant an edge over root-rot problems.

The fibrous root system develops into an inverted V shape which can be butterfied outward. The lower-inverted shape root systems intercept water movement which promotes a quicker positive take.

Plants grown in V-trays and V-pots have better transplantability. This feature can be used as a marketing tool by the manufacturer, the grower, and the retailer.