

## LEAF COMPOST MIXES FOR BEDDING PLANTS

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Increasing concern over environmental pollution has caused many towns to adopt composting operations as a means of disposing of leaves. The resulting availability of substantial quantities of this compost led to attempts to substitute it for soil or peat moss in growing mixes for bedding plants.

Experiments were established at the University of Connecticut Vegetable Research Farm in North Coventry, Connecticut to evaluate the use of leaf compost supplied by Brookside Nurseries, Inc., Darien, Conn. as a substitute for soil or peat in soil-based mixes and as a peat substitute in synthetic mixes.

A total of 31 combinations of natural and industrial by-products were evaluated including the following:

Soil:peat:sand	2:1:1
Leaf compost:peat:sand	2:1:1
Soil:leaf compost:sand	2:1:1
Peat:vermiculite	1:1
Leaf compost:vermiculite	1:1
Peat:shredded styrofoam	1:1
Leaf compost:shredded styrofoam	1:1

Table 1. Comparison of several growing media for production of Petite Yellow marigolds.

	Average Height	Average Number of Blooms per Pak	Saleability Rating
Soil:sand:peat	6.8	21	5
Leaf compost:sand:peat	7.8	16	4
Soil:sand:leaf compost	6.5	10	6
Peat:vermiculite	7.0	21	1
Peat:shredded styrofoam	7.0	10	7
Leaf compost:vermiculite	7.0	13	3
Leaf compost:styrofoam	7.0	15	2

Marigolds cv. Petite Yellow were direct seeded on February 2, 1971 and data were taken April 13, 1971.

Results indicated that leaf compost can be substituted effectively for soil or peat in growing media for bedding plants (Table 1). Average height of plants did not differ appreciably. Number of blooms (21) was greatest in the two control treatments--soil:peat:sand and peat:vermiculite. The number of blooms (16) produced by the leaf compost:peat:sand treatments and leaf compost:shredded styrofoam (15) did not differ significantly from the control.

Less dramatic results were obtained when leaf compost was substituted for peat in the soil-based mix. This probably resulted from the fact that the soil used in our mixes is composted and, therefore, similar to the leaf compost. Drainage was impeded by this combination but was far from unsatisfactory.

The leaf compost:vermiculite mix also produced fewer flowers. This was again probably due to reduced drainage brought about by the compaction of the mix.

The leaf compost used in these trials was not pasteurized. While no disease problem developed, an occasional weed was encountered. This could differ greatly in other batches of compost.

Leaf compost can be used successfully in growing media for bedding plants. It appears at this time to work best when combined with rigid amendments such as sand, styrofoam and most likely perlite and has potential as a replacement for either soil or peat in growing media.