

Media trial for bench-top production of salad greens

In fall 2012 and winter 2013 growth of salad greens was evaluated in five soil substrates. 'Defender' lettuce, 'Corvair' spinach and 'Early mizuna' were grown for 41 days in a greenhouse heated to a 50 °F minimum temperature set point. Growth rate and yield were monitored once salad greens were ~1.5 inches long. Some substrates were very successful, and others performed poorly.



Salad greens grew well in these substrates



Light Mix Greenhouse Blend | Living Acres Compost, New Sharon, ME
Compost based mix that is screened to 1/4" and intended for germinating plants. Composed of dairy and poultry manures, humus peat, sphagnum peat, perlite, log rinse soil and coarse sand.



Fort Vee Potting Soil | Vermont Compost Company, Montpelier, VT
Compost based mix designed for germination and use in containers. Composed of sphagnum peat, composted manure and plant materials, screened granite, vermiculite, organic and mineral amendments



Osmocote Start 12-17-11 | Scotts Professional
& **Sunshine Mix LB2** | Sungro Horticulture Agawam, MA
Potting mix composed of sphagnum peat moss, coarse perlite, gypsum and dolomitic limestone. Osmocote Start controlled release fertilizer with a 45-day release period. Incorporated at 8 lbs N per cubic yard.

Salad greens did not grow well in these substrates



Sustane 8-4-4 | Sustane Natural Fertilizer Inc. , Canon Falls, MN
& **Sunshine Mix LB2** | Sungro Horticulture Agawam, MA
Sustane slow release fertilizer composed of organic composted turkey litter, feather meal and sulfate of potash with a 45-day release period at 75 °F. Incorporated at 8 lbs N per cu. yd. Did not support healthy plant growth. Plants were chlorotic and growth was variable.



Sunshine Mix LB2 Sungro Horticulture Agawam, MA
Peat based substrate alone did not have adequate macro-nutrients to support plant growth, even for a short-term, 41-day crop of salad greens.

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