

certain seedlings having 1.5 to 7 times more explants forming shoots compared to other plants. Leaf explants from donor plants with the highest regenerative capacity had a higher percentage of regeneration on DKW than MS medium. Explants from productive donor plants should be placed on DKW medium supplemented with TDZ to improve shoot regeneration efficiency from American elm leaves.

Evaluating Pulp and Paper Sludge as a Substitute for Peat Moss in Container Media

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Pulp and paper sludge is a byproduct of paper production, yet this fibrous material may be suitable as an alternative amendment for peat moss in container media. Newsprint mill sludge was composted 6 weeks and cured before use. One-year-old seedlings of lilac (*Syringa vulgaris* L.) and amur maple (*Acer tataricum* ssp. *ginnala* syn. *A. ginnala*) as well as rooted cuttings of cistena plum (*Prunus ×cistena* Hansen) were planted in 3-liter pots containing a bark : sand (2 : 1, v/v) mix, 25% or 50% peat-amended media, or 25% or 50% sludge-amended media. After 14 weeks outdoors, shoot dry weight and changes in plant height were measured. All species planted in sludge-amended media grew as well as those potted in peat-amended or the bark : sand media. In fact, some species grew best in sludge-amended media. Lilac seedlings planted in 25% sludge produced almost double the amount of shoot dry weight and were 80% taller than plants in the bark and sand mix or 25% peat. Maple plants grown in 50% sludge produced over 100% or 35% more shoot dry weight than those grown in 25% or 50% peat-amended media, respectively. Plum cuttings potted in 25% sludge grew at least 53% taller than plants grown in either peat-amended medium. These results indicate that composted newsprint sludge can be used as a peat moss substitute in a container medium for the landscape plants tested.

Alaskan Natives: More Potential for Ornamental Nursery Crops

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The purpose of this project was to:

- Collect native Alaskan species.
- Develop the propagation techniques for these selected species as potential new introductions in the Idaho nursery industry.
- Include some species in the small fruit breeding and demonstration trials at the University of Idaho-Sandpoint Research and Extension Center in Sandpoint, Idaho.

This project has been conducted as part of a cooperative effort between the University of Idaho-College of Agriculture, Idaho nursery growers, the Idaho Department of Agriculture, and the Stillinger Foundation. Major collection areas were: the Interior (Fairbanks, Delta, Denali Park, etc.), the Yukon River, above the Arctic Circle (Brooks Range, Prudhoe Bay, etc.), the Kenai Peninsula, Cook Inlet, and the Copper River Delta. Habitat types included alpine and arctic tundra, glacial and river outwash, spruce bogs, and boreal forest. Approximately 150 plants were collected and pressed for inclusion in the Alaska section of the University of Idaho Herbarium, and approximately 30 different species of trees, shrubs, and herbaceous perennials were collected for potential use as nursery or fruit crops. The following species were presented in the poster presentation, but more species are currently being examined: *Arctostaphylos uva-ursi* var. *uva-ursi*, *Empetrum nigrum*, *Iris setosa* ssp. *interior*, *Loiseleuria procumbens*, *Rhododendron lapponicum*, *Rubus arcticus* ssp. *acaulis*, *Salix alexensis*, *Vaccinium uliginosum* ssp. *alpinum*, *Vaccinium vitis-idaea*, and *Viburnum edule*. There is much potential for expanding product inventory by introducing what are native species in some areas (Alaska) as exotics in other areas (Idaho) with similar environmental and climatic conditions. This work is only the preliminary stage of a long process to develop some of the more desirable native Alaskan species as new products for the commercial nursery industry. In addition to initial propagation procedures, various cultural conditions including watering, fertilizing, temperature, lighting, and different propagation media will all need to be tested to optimize production of each species. The final stage of development will be examining how well the plant grows on a natural landscape in a non-native environment. These stages will take time, but the process has begun, and hopefully can continue as public and private institutions seek to improve the future of the nursery industry.

Correction: *Vaccinium uliginosum* ssp. *alpinum* was confused with another species that is not included in this poster. It was collected but not propagated. The error was not recognized until the poster was near completion.

Oregon Association of Nurserymen's Plastic Recycling Program

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A program to recycle broken plastic pots, flats, and plug trays was initiated by the Oregon Association of Nurserymen in February 1995. Plastics accepted must be made of polyethylene (recycling symbol 2), polypropylene (recycling symbol 5), or polystyrene (recycling symbol 6). To participate, the plastics must be free of soil, separated by resin type, and delivered to 1 of 3 cooperating plastic consolidators in the Willamette Valley. The consolidators bale and ship the material to reprocessors for manufacturing into resin pellets or plastic lumber.