## SANITATION IN PROPAGATION

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The major sources of plant disease organisms are infected plants, plant debris, soil and rooting media. Disease organisms are disseminated by the transportation of infected plants or plant parts, by air currents, water, insects, nematodes, and mechanically by man. Based on his knowledge, and on experience in controlling diseases, the following sanitary practices will help maintain plants in a disease-free or healthy condition.

Obtain cuttings from selected, disease-free stock plants isolated from production areas.

Take cuttings from high up on the plants.

Break cuttings from stock plants where possible or disinfest tools between cuts.

Do not overhead irrigate stock plants

Keep stock plants sprayed with protective fungicides to reduce the danger from infection by air-borne spores.

Eliminate weeds.

Control insects.

Keep all plant debris cleaned-up.

Do not dip cuttings in water, dust rooting hormones onto cut ends.

Treat all propagating and growing media with steam or chemical lumigants.

Treat containers or use new ones.

Disinfest tools and smooth working surfaces with formalin solution (1 part 37-40% formalin to 18 parts water).

Disinfest benches and other wooden surfaces with copper naphthenate 10% (2% copper).

Do not place treated soil, containers, etc. on untreated surfaces or directly on the ground.

Do not introduce plant disease organisms into treated soil.

. Keep feet off treated soil.

Keep hose nozzles off the ground.

Wash hands after working with untreated soil.

Avoid splashing soil particles with irrigation water.

Do not expose treated soil to blowing soil or debris.

Dispose of all diseased plants.

MODERATOR MAIRE: Now we will hear from three speakers who are using these sanitation practices in producing nursery stock. The first is Carl Zangger.