Treatments used for sanitizing tools, equipment, pots, flats, surfaces, and other related items

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All items should be free of organic debris before exposure to the treatments listed below.

Material or Treatment	Trade name	Formulation	Remarks	Contact time
Alcohol, ethyl and isopropyl (grain, rubbing, wood) (70-100%)	Various commercial brands; Lysol Spray (also includes quaternary ammonium)	Depends on formulation. Read label. Typically full strength for RTU (Ready To Use) formulations.	Evaporates quickly so that adequate contact time may not be achieved; high concentrations of organic matter diminish effectiveness; flammable.	10 min for equipment, pots, flats and surfaces. Tools can be dipped for 10 seconds and allowed to dry. Do not rinse.
Phenolics	Pheno-Cen Spray Disinfectant	Depends on formulation. Read label. Typically full strength for RTU (Ready To Use) formulations.	Phenol penetrates latex gloves; eye/skin irritant; remains active upon contact with organic soil; may leave residue.	10 min for equipment, pots, flats and surfaces. Tools can be dipped for 10 seconds and allowed to dry. Do not rinse.
Peroxyacetic acid and hydrogen peroxide mixture	ZeroTol; SaniDate;	2.5 oz per gallon of water; Depends on formulation. Read label.	Corrosive; causes irreversible eye damage; eye/skin irritant. Low odor. Use according to label.	10-15 min
Quaternary ammonium	Consan Triple Action 20; Physan 20; GreenShield 20;	Depends on formulation. Typically 1 tablespoon per gallon of water.	Effective for non-porous surface sanitation, e.g. floors, walls, benches, pots. Low odor, irritation. Use according to label.	10-15 min
Sodium hypochlorite (5.25%)	Clorox; Commercial bleach;	10%; or a 1:9 ratio of bleach : water	Inactivated by organic matter; fresh solutions should be prepared every 8 hr or more frequently if exposed to sunlight; corrosive to metal; irritating to eyes and skin; Exposure to sunlight reduces efficacy. Keep solution in opaque container.	10-15 min for equipment, pots, flats and surfaces. Tools can be dipped for 10 seconds and allowed to dry. Do not rinse.
Steam	NA	Cover or otherwise seal	For plastic pots and trays, heat center of steamer between 150°F – 160°F; For less heat-sensitive objects, heat to 180°F.	60 min; 15 min.
Solarization	NA	Place clean items on solid surface, cover tightly with CLEAR plastic.	Clear plastic works much better.	140°F, 4 to 8 hr/day for 7 days