

STRAWBERRY PRODUCTION IN SOIL-LESS SUBSTRATE TROUGHS – PATHOLOGY

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California strawberry production has historically been dependent on soil fumigation using methyl bromide/chloropicrin for control of soilborne disease, especially wilt caused by *Verticillium dahliae*, and rot caused by *Phytophthora cactorum*. Recent regulations regarding soil fumigant use are making soil fumigation more difficult to use and alternative production systems are needed. In Europe, soilless substrates made of peat moss, coconut coir, perlite, rockwool or bark that are pathogen free have been used in strawberry production in troughs or containers. Two other papers at this conference describe such a system and address plant growth and water use in a soilless production system (Gabriel et al, Wang et al.) In the Watsonville trial referred to in the 2 papers, 5 of the strawberry beds remained non-fumigated. These beds consisted of fabric lined troughs filled with the following substrates: 60% peat:40% perlite, 67% Peat:33% rice hulls, 67% coir:33% rice hulls, and 50%Peat:50% redwood soil conditioner. One bed was the standard strawberry raised bed with non-fumigated soil. Field samples were collected from these beds in late August. The samples included root and crown tissue, substrate material and soil from below the troughs, and were assayed for *V. dahliae*, *P. cactorum*, and *Colletotrichum* spp. Disease incidence and pathogen infection data are being developed and will be presented on the poster.