

Questions/Answers: General Session II

Kathy Echols: Dr. Stapleton, have you looked at effects of solarization on mycorrhizae?

Jim Stapleton: Yes, it follows the situation with steam where in certain cases at high temperature you will need to inoculate with mycorrhizae. We don't have that completely determined for all plants, but there are some adverse effects of solarization on mycorrhizae populations. Normally though we don't see total eradication and within a very short period of time we will see mycorrhizal reinfection.

Kathy Echols: Will you restate you website address?

Jim Stapleton: <http://www.uckac.edu>

Peter Clements: Have you conducted any solarization studies with *Armillaria*?

Jim Stapleton: No. We've done work in the field with *Armillaria* and solarization is not effective there primarily because it tends to be distributed very deeply in the soil. We don't recommend the use of solarization for permanent crops except in very specific applications such as the control of *Verticillium* which tends to be easily controlled.

Don Dillon: Is solarization effective in the control of *Phytophthora*? Are there differences between using clear and black plastic for the solarization?

Jim Stapleton: Yes, solarization is very effective against *Phytophthora*. Reinfestation is a major problem in the control of *Phytophthora*. In some cases *Phytophthora* infests irrigation water or container-grown plants are infested when sitting on *Phytophthora*-infested soil where rain splashing disperses the fungus. As far as the different plastics go, clear plastic allows the passage of solar energy through it allowing for the accumulation of heat inside whereas black plastic absorbs heat itself transmitting less through the film. This results in considerably less heating inside or underneath black plastic. There may not be much difference between clear and black plastic in the Central Valley of California since it is so hot during the summer months, but in other areas where it's not as hot, clear plastic is a better choice.