

Highland, H. 2010. MeloCon WG[®] and SoilGard 12G[®] used in a program as a methyl bromide alternative to control nematodes and soil borne diseases in vegetable production. *Phytopathology* 100:S50.

In reaction to the Montreal Accord of 2007 on restricting ozone depleting gases, effective and safe alternative treatments are being investigated, labeled and used in commercial production. The loss of fumigants is especially deleterious to the production of fresh market vegetables. In the southeastern U.S., soil borne diseases and nematodes can be of particular concern. A program of MeloCon[®] WG and SoilGard[®] 12 G, marketed by Certis USA, have been shown to be very effective when used alone or in combination to control nematodes and soil pathogens in field trials in the U.S. MeloCon[®] WG is a naturally occurring and beneficial soil fungus (*Paecilomyces lilacinus* strain 251) that controls a wide range of plant parasitic nematodes. MeloCon[®] WG has been shown in replicated field trials to control both southern root knot nematodes (*Meloidogyne incognita*) and stubby root nematodes (*Trichodorus* spp. and *Paratrichodorus* spp.), as well as many others. SoilGard[®] 12G is also a naturally occurring and beneficial soil fungus (*Gliocladium* (Trichoderma) *virens* strain GL-21) that controls a wide range of soil borne pathogens, including southern blight (*Sclerotium rolfsii*), *Fusarium* crown rot, and pepper blight (*Phytophthora capsici*). Replicated field trials using various fresh market vegetables with these products in conjunction with soil applied herbicides resulted in improved plant growth, increased survival, and increased yields, similar to methyl bromide and other chemical standards.