Maintaining Agroecosystem Health in the Conversion to Organic Management of a Strawberry/Vegetable Rotation System. (A08-muramoto111203-Poster)

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Abstract:

Demand for organic produce has increased dramatically in the last five years. To limit soil-borne plant diseases without chemical fumigation, organic strawberries must be rotated off the land for several years. This inhibits the ability of most growers who specialize in this crop to increase their production. A team of organic growers, multidisciplinary researchers, and the landowner has worked together to design an organic strawberry/vegetable rotation system on the central coast of California. In 2001, we initiated a five-year rotation trial with five treatments (s-s-s-s-s, s-v-s-v-s, v-s-v-v-s, s-v-v-v-s, v-v-v-v-s. s: strawberries + broccoli biofumigation, v: vegetables (spinach + broccoli) + cover crops. year 1-2-3-4-5) to demonstrate shorter strawberry rotations that integrate multiple ecological practices. Soil health indicators (Verticillium dahliae propagule number, mycorrhizal colonization, microbial community and biomass, and physicochemical indicators) and agroecosystem health indicators (yield, disease incidence, nutrient budget, energy flows and production costs) will be monitored in the trial over five years. Initial results from the first year will be presented.

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