Evaluating the effect of Microclover Black Beauty as a semi-permanent cover crop and living mulch on organic tomato production

2019 Northeast Sustainable Agriculture Research & Education (NESARE) Farmer Grant

Like all legumes, Microclover converts atmospheric nitrogen into plant-available forms of nitrogen, naturally fertilizing itself and plants around it.

This experiment tests the effects of Microclover Black Beauty sod on organic tomato production in comparing 3 treatments, repeated 3 times in a randomized 9x9 grid.

GM **Green Manure:** 5-inch rows are strip-tilled directly into established sod, green manuring the sod in rows and leaving 4 ft of the legume/grass mix as a living mulch.

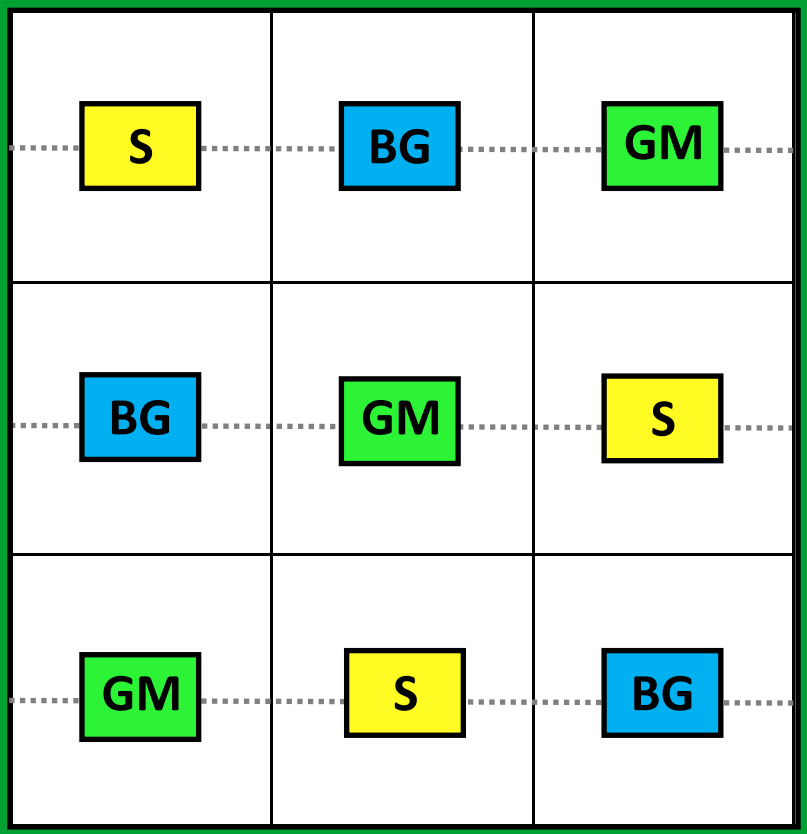
S **Strip:** 5-inch rows of sod are completely removed, leaving 4 ft of the legume/grass mix as a living mulch.

BG **Bare Ground:** Sod is removed from the entire area, leaving the soil bare, without green manure or living mulch.

Each quadrant is divided into two fertilizer treatments:

A **A:** 50% of organic fertilizer recommended by the New England Vegetable Management Guide (70 lbs/acre).

B **B:** 25% of organic fertilizer recommended by the New England Vegetable Management Guide (35 lbs/acre).



All rows are watered by drip irrigation and mulched with organically managed Microclover Black Beauty grass clippings collected from our fields.

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