

2TH ANNUAL SYMPOSIUM ON AGRICULTURAL ECOLOGY

Ithaca, Cornell University, 1993.

2:45

Brian Schultz, School of Natural Science, Hampshire College, MA



Some good and bad news about mulches and cover crops, insect control and sheep (or Mulches: Baaa Humbug). Mulches sometimes reduce pest numbers, but results are actually quite variable in the literature. In experiments at Hampshire, hay mulch reduced aphids in tomatoes in a dry year but not in a rainy year. Black plastic mulch reduced aphids but increased Colorado potato beetles (CPB). Hay mulch had variable results on CPB in tomatoes and potatoes. Mulches from mowed cover crops increased squash bugs in winter squash. On the positive side, applying mulch just in potato rows showed some effects on CPB, allowed hilling and cultivation, and required less mulch. Finally, using sheep to "mow" winter cover crops facilitated plowing, resulted in increased squash yields, and also provided spring forage, conveniently combining a crop and a livestock system.

3:05

Moacyr Dias-Filho, Ecology and Systematics, Cornell University



Low-input management for sustaining pasture production in Brazilian Amazonia: research strategies. A realistic approach for reducing further deforestation due to cattle ranching in Brazilian Amazonia is to develop technology aiming toward more productive and stable pasture systems. Such technology would allow extension of the longevity of productive pasture areas and reclamation of abandoned ones, thus reducing land-use pressure on forested areas. During the past 15 years, the Brazilian Agricultural Research Organization (EMBRAPA) has been conducting research on low-input strategies for sustaining pasture production in Brazilian Amazonia. This research has involved: selection of adapted grass and legume germplasm, identification and management of constraints to pasture stability posed by pests, diseases and soil fertility, and the development of low-input technology for reclaiming abandoned pasture areas. Adoption of this technology by local farmers is already having a beneficial effect on the stability of existing pasture systems in the area.

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