

	Spears	% Cult	Ounces	% Cult	Oz / Spear	% of Cult
Straw Mulch	766	114%	388	107%	0.506	94%
Cultivation	672	100%	361	100%	0.538	100%
White Clover	548	82%	263	73%	0.480	89%
Rape	543	81%	233	64%	0.429	80%
Buckwheat	499	74%	233	64%	0.466	87%
Crimson Clover	408	61%	136	38%	0.333	62%
Total	3436		1613		0.459	
Average	573		269		0.459	
St Dev	127		93		0.072	
Variability	22%		34%		16%	

Table presenting harvest data for the 2002 growing season.

If white clover is used there is a overall loss of productivity of 18% for spears and 27% for weight. These data suggest that a combination of straw mulching over the asparagus to increase productivity and white clover to reduce inter row weed may be an optimal strategy for organic production of asparagus.

Further investigation of the economic impact of these strategies could also be investigated. One initial goal of the project was to monitor shoot quality in relationship to cover crop type. Different cover crops may reduce insect damage or increase blanching of the stalks that may produce a better appearing thus more valuable product. These effects were not observed during the 2002 harvest season. The long term effects of cover crops could also be monitored. The observations that different cover crops were followed by different weed types may offer opportunities to evaluate control of different weeds by alternative cover crops. A perennial cover crop such as dutch white clover appears to be an appropriate cover crop since it establishes a permanent "lawn" of mowable leguminous material that can be distributed to the asparagus rows.

Continued use of this information

I plan on applying this information in the future in an attempt to develop a less labor intensive way of managing weeds for asparagus and other perennial crops.

Outreach

On February 15, 2003 these findings were presented at the MOFFA (Maryland Organic Food and Farming Association) annual winter meeting at the Maryland Department of Agriculture. It was attended by farmers, representatives from Maryland's state department of agriculture and county extension agents. I have also invited representatives of county extension to the project site.

Michael Klein February 11, 2003