

There was not enough variation in the leaf tissue analysis from different treatments to reflect the results of using RWC.

RESULTS: From the data collected, it is apparent that the RWC have a greater effect on the soil structure than the soil fertility over two years. It may be that two years is not enough time to see significant changes in the soil fertility. The control area where no ramial wood chips were applied showed an increase in nutrients that may have occurred because the amendments (manure, straw and compost) that I used to treat the plot in the spring of 2004 were breaking down and becoming available.

ASSESSMENT: Growth of trees was greatest in the treatments where RWC were used as a mulch. The fact that the treatments where RWC were mulched have increased in the percentage of organic matter is most encouraging. This sandy loam has been extremely low in organic matter and cover cropping, adding manure and compost have not changed the organic matter as much as two years of RWC applications have changed the percentage of organic matter. Lime will have to be applied where the RWC is used as a mulch, because the application tends to lower the pH of the soil. The most labor intensive part of this research was cutting and chipping the alders and poplar trees. This may not be practical on a large scale. Further research would involve looking at the application of RWC over a longer period of time. A combination of using RWC, cover crops and compost is a possibility.

OUTREACH: As of this date, I have not done the outreach on this project. I plan to submit an article to the Maine Organic Farmer News and I am going to open the farm to visitors on Open Farm Day, July 22nd, to discuss the project and the results.

SUMMARY: The purpose of this project was to determine if the use of RWC could make a difference in fertility and soil structure in a nursery bed. In the nursery bed, there were 4 treatments set up for two varieties of apple trees. In one treatment, no RWC was used (control) In the other 3 treatments, RWC were tilled into the soil, mulched over the roots of the trees and mulched with the addition of bloodmeal. The practice of spreading and mulching with RWC will definitely continue on the farm. The most encouraging gain to using RWC is the increase in organic matter. Soil testing will be done annually to check pH levels, soil fertility and percentage of organic matter in the areas where the RWC are used. Results from these tests, will further the knowledge of the effectiveness of using RWC to improve the sandy loam in the nursery area.

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