

Cover Crop and No-Till/ Minimum Till Practices Summary 2015 - 2017

Keith Wilcox and Sons

We have been interested to learn the advantages and disadvantages of using cover crops and no-till and minimum tillage practices on our farm for several years. After attending workshops and demonstrations of the practices and expected results we have launched into learning on our own ground, and our crop rotations. We wanted to know, just what are the best practices that will be sustainable for us?

We have demonstrated that the soil health can be improved and fewer inputs required producing our crops using cover crops and minimum tillage. We have not been as successful as we hoped in some areas such as in a potato grain rotation because the ground working required for our potato crop. However, it is beneficial for the soil health in general because we are seeing improved yields in our grain rotation and undocumented savings in the potato crop inputs compared to other fields on our farm. Each field must stand on its own for fertility and crop protection inputs which we have not determined how to measure appropriately yet for comparisons. We have not seen much in erosion control differences on the Rexburg Bench ground because our tillage has been very successful in preventing runoff on all our other ground. However, savings can be realized in not working the ground.

One of the biggest problems we have encountered with these practices stems from hordes of voles and mice in the soils that have not been worked. We have had to treat the problem with Zink Phosphide pellets to gain any control and save a spring planting of grain. (Hungry little varmints). Also experienced negatively was rotting of potato seed in the ground when we waited until late spring to work the ground following a cover crop that did not winter kill. The plants were two to three feet tall, and there was a large amount of green manure worked in just before planting the potatoes. Where ever the clumps of green manure came into contact with the seed potato there was rotting seed.

We do feel that with these lessons learned, among others that we have experienced, that there is a place for these practices in our operation and we are incorporating them into our other farms as much as possible each year now. No-Till dry farm grain is a big winner for us because of less erosion and soil moisture savings. We think we are seeing yield increases of 10 - 15 bu./per acre mostly because we are not losing any moisture working the ground. We are using the no till drill on irrigated ground but have not seen the benefits as much there. However, it looks to be saving fuel with similar yields and quality.

We have appreciated working with the Madison SWCD and the NRCS and learning with their help. Thanks to all who have been involved and worked with us.

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