



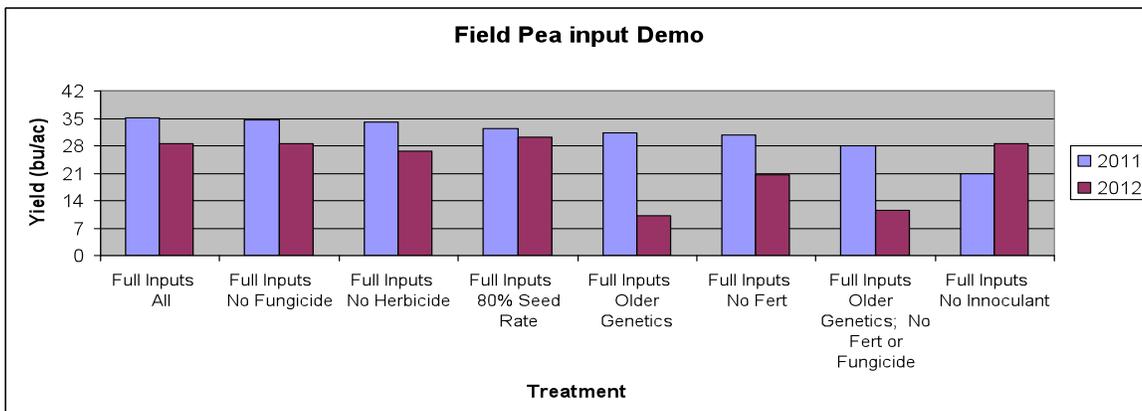
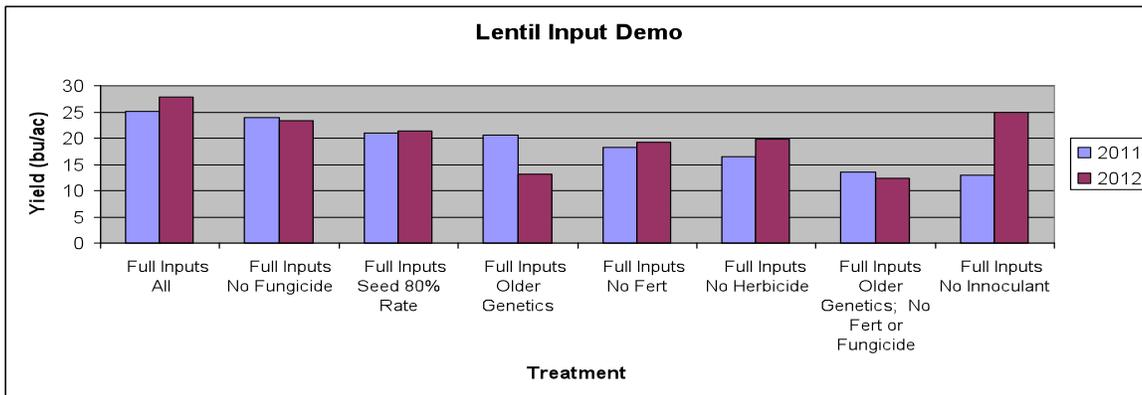
# Wheatland Conservation Area Inc.

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## Input Study for Pea and Lentil

Recently, lentils have been dominating the pulse phase of many rotations in the province due to positive economic returns and rotational benefits. On the other hand, peas have played a smaller role due to lower returns even though they provide similar rotational benefits. Producers would like to see how they can potentially improve net returns from both crops and maintain diversity in the pulse phase of their cropping system. This project looks at crop inputs and demonstrates the role that they have on healthy plant development, and yield. Six inputs were looked at on pea and lentil crops: genetics, fertilizer, inoculant, herbicide, fungicide, and seeding rate. Starting with a full line of commonly used inputs, we removed each input separately and looked at what affect each input has when removed from a full package. Eight treatments were applied to each crop involving a full package of inputs, a full package less each input, as well a package of low inputs with inoculant and herbicide only.

As in 2011, this year we achieved similar results with the highest yield from the full package of crop inputs in both lentils and peas. However the un-inoculated treatments were some of the highest yields for both crops in 2012 reversing what we saw in 2011. This was likely just an anomaly in the data and would not be a recommended practice in this area of the province. Using older genetics for both crops had the greatest negative impact in yield. Lentils, being a less competitive crop, shows a greater yield reduction from the absence of a herbicide treatment and a reduced seeding rate than does a competitive crop, like peas. Also, the yield reduction does not appear to be as drastic in peas when you move away from a full package of inputs, whereas, lentil yields seem to be impacted more when an input is removed. It is not recommended to remove any of the major inputs we studied, especially for lentil growers. Under different growing conditions, the impact of various inputs on yield may change.



### Acknowledgements

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