

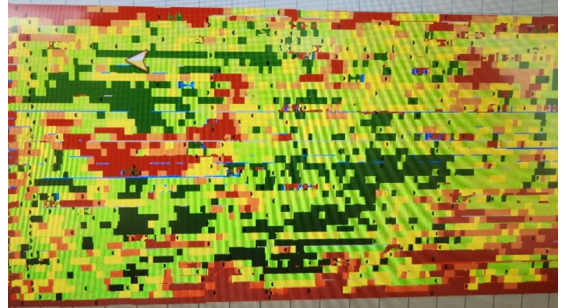


# DEMONSTRATION OF INNOVATIVE CORN PRODUCTION TECHNOLOGIES: VARIABLE RATE PLANTING

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## PROJECT

Conducted at multiple sites between Vernon and Lumby, BC during growing seasons 2019-2022 to examine the adaptability of variable rate planting to the interior corn growing region. Six row wide strips of various populations from 29,000 to 42,000 plants per acre were planted as well as a variable rate strip. The variable rate strip was based on soil mapping data and yield results with an overall target population of close to the field average and varying up and down within the 29-42k range.



## RESULTS

Performance increases from plant population is very dependant on yield potential. In the seasons where irrigation was adequate, yield increased with population; and it was more profitable to plant at higher rates with gains of up to 0.5t/ac of grain and 1+t/ac of silage. Unfortunately in years such as 2021's heat dome there was no response to the added population and profitability decreased.

Variable rate was successful in that we determined soil zones, however overall there was limited increase in return compared to the field average. Further refinement will be needed, possibly varying the populations a greater amount, or with further consideration of irrigation system performance. An additional challenge is the short marketplace cycle of corn hybrids, as each hybrid has a somewhat different response to population and may not be available for many consecutive years.



## ACKNOWLEDGEMENT

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