
TWO DIFFERENT APPROACHES TO MANAGING PVY IN THE SAN LUIS VALLEY

Presented by:
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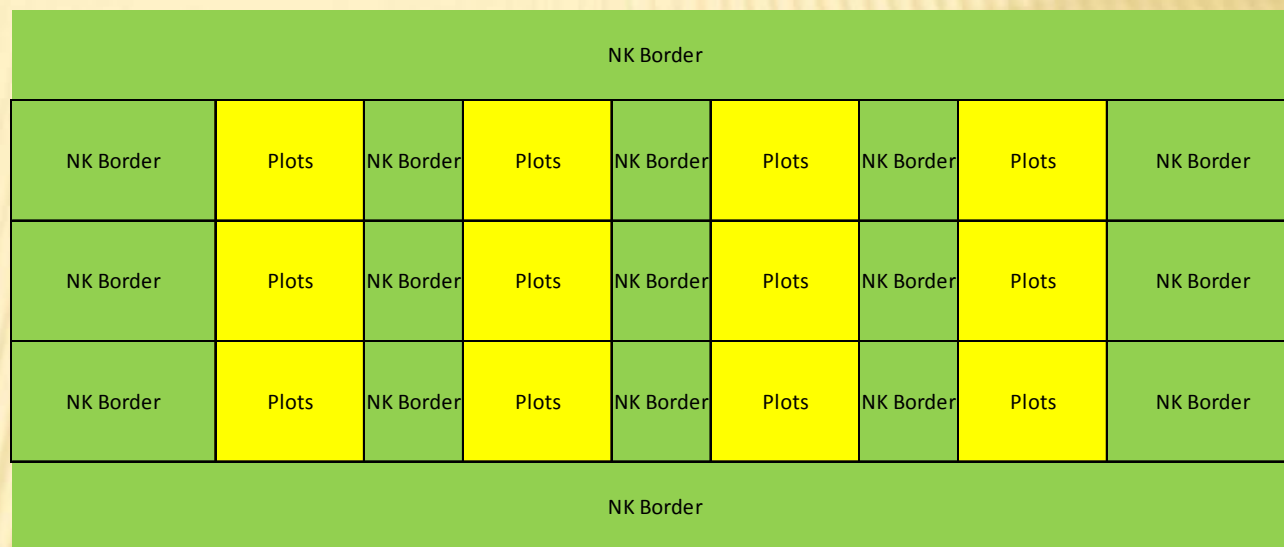


EVALUATION OF POTATO CULTIVARS FOR PVY RESISTANCE

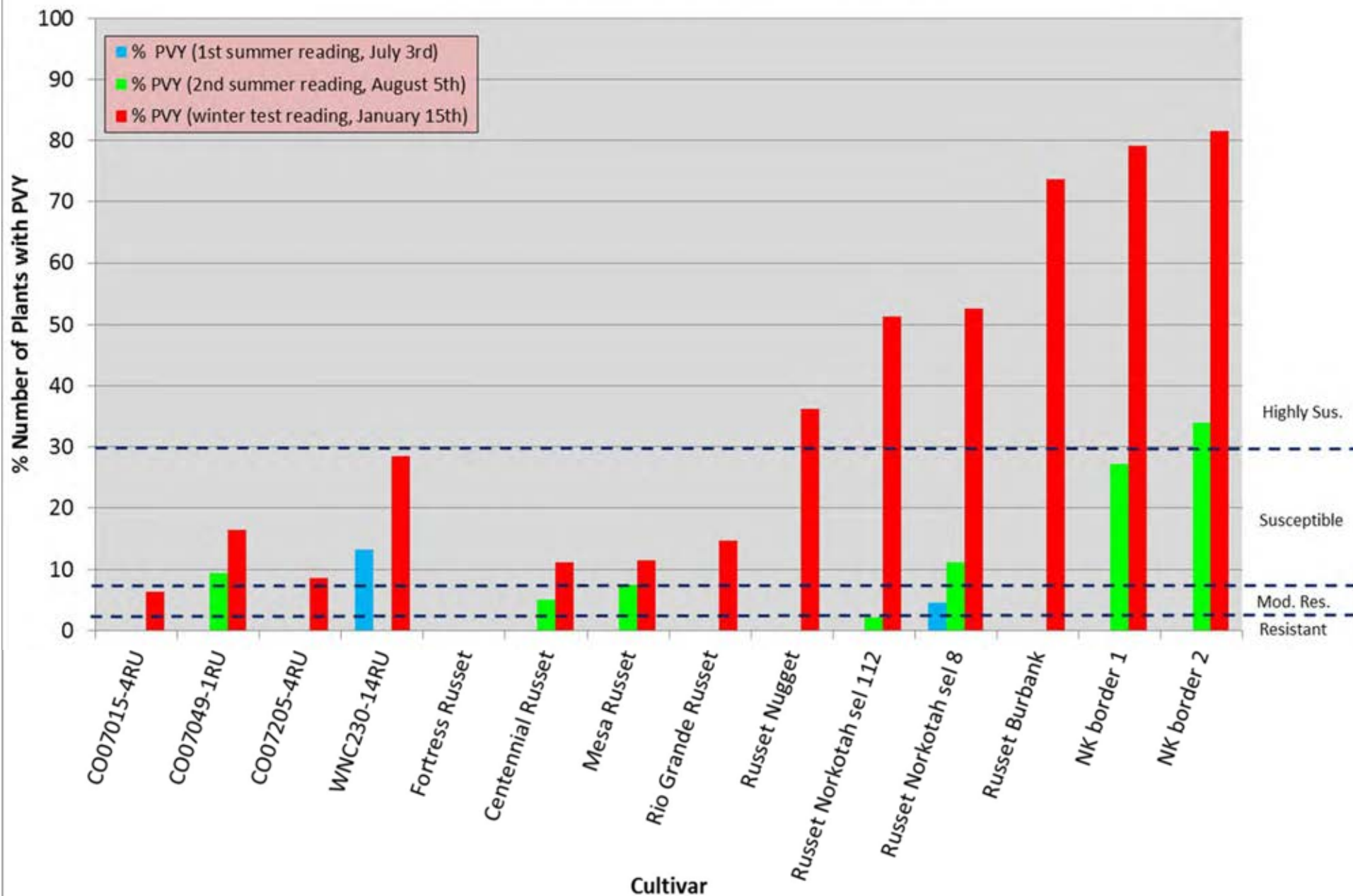
- ✘ 42 different cultivars (named & experimental)
- ✘ Natural spread of PVY via infected aphids
- ✘ Plot located in the middle of a Russet Norkotah field (about 40% PVY infection)
- ✘ Cultivars evaluated had a low initial infection of PVY (when possible)
- ✘ 3 reps, 15 ft of row per plot
- ✘ Evaluated twice in summer and at PHT plots in Oahu, Hawaii



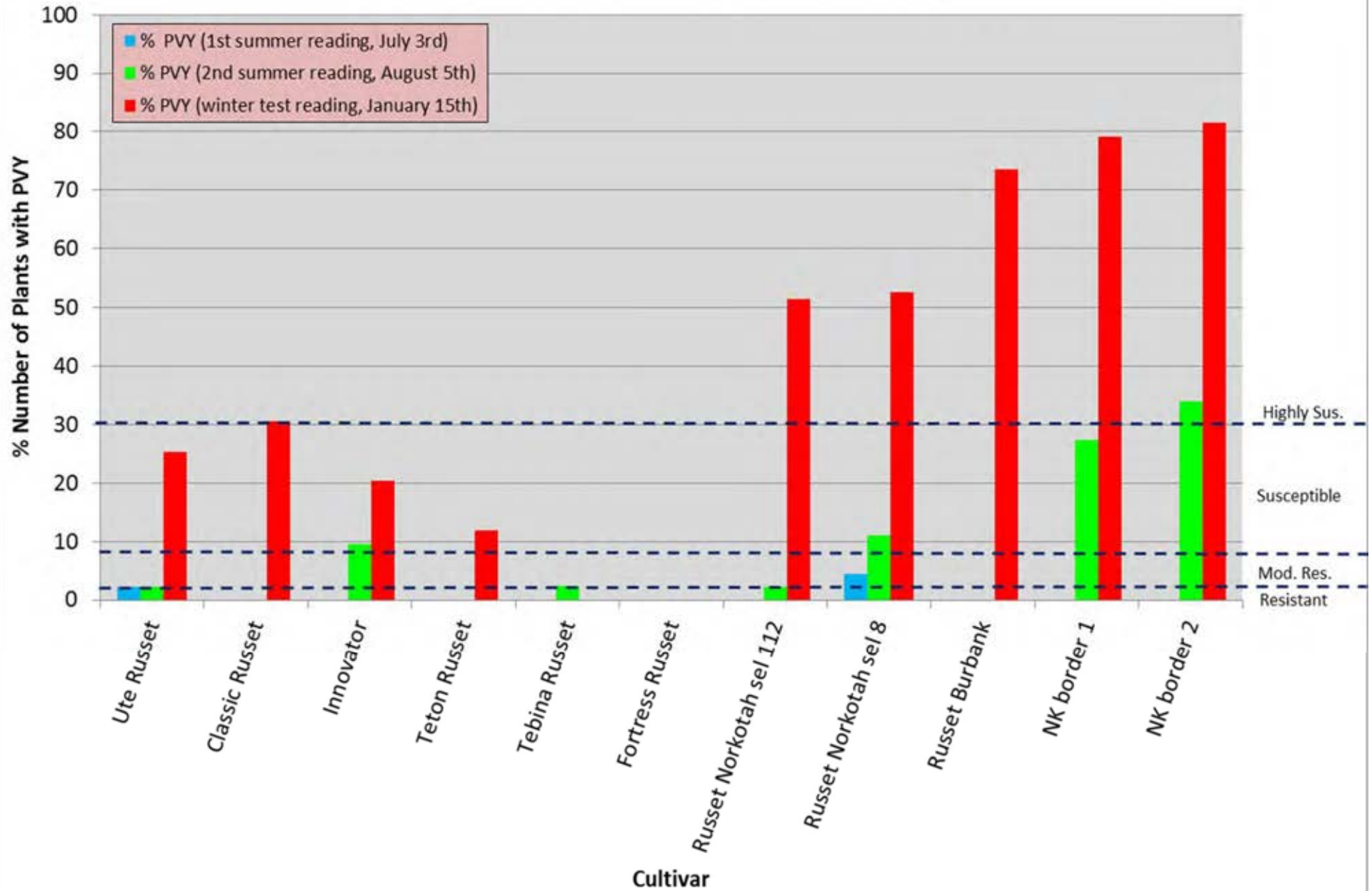
EXPERIMENTAL DESIGN



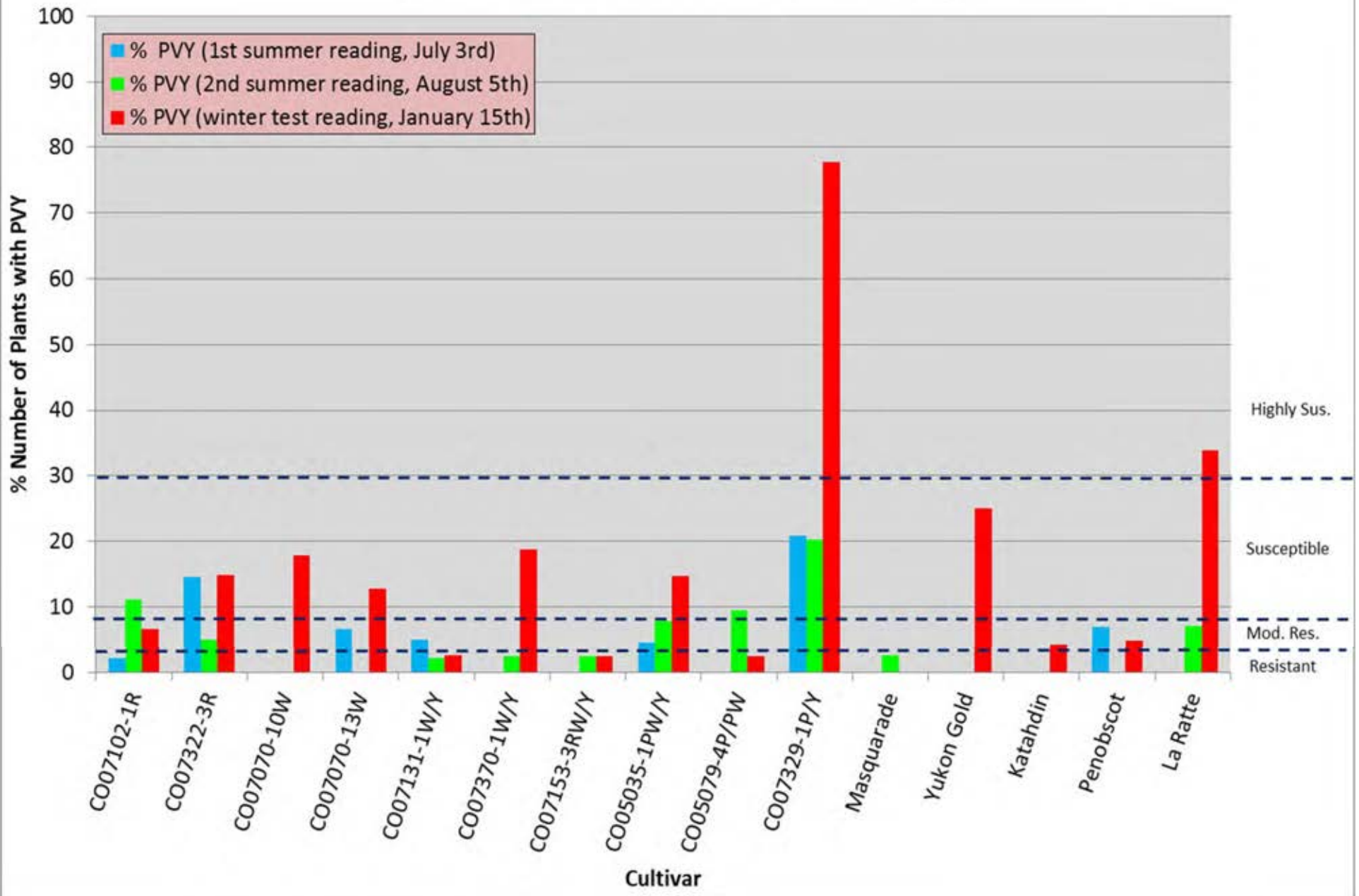
2014 Evaluation of Potato Cultivars for PVY Susceptibility (Russet Cultivars, SLVRC, Center, CO)



2014 Evaluation of Potato Cultivars for PVY Susceptibility (Russet Cultivars cont., SLVRC, Center, CO)



2014 Evaluation of Potato Cultivars for PVY Susceptibility (Specialty Cultivars, SLVRC, Center, CO)



PVY CULTIVAR SCREENING SUMMARY

- ✘ Wide range of susceptibility/resistance to PVY
- ✘ Use different cultivars to manage PVY on your farm!
- ✘ The cultivar you plant can make your PVY situation better or worse!



FLOWERING MIX PVY STUDY



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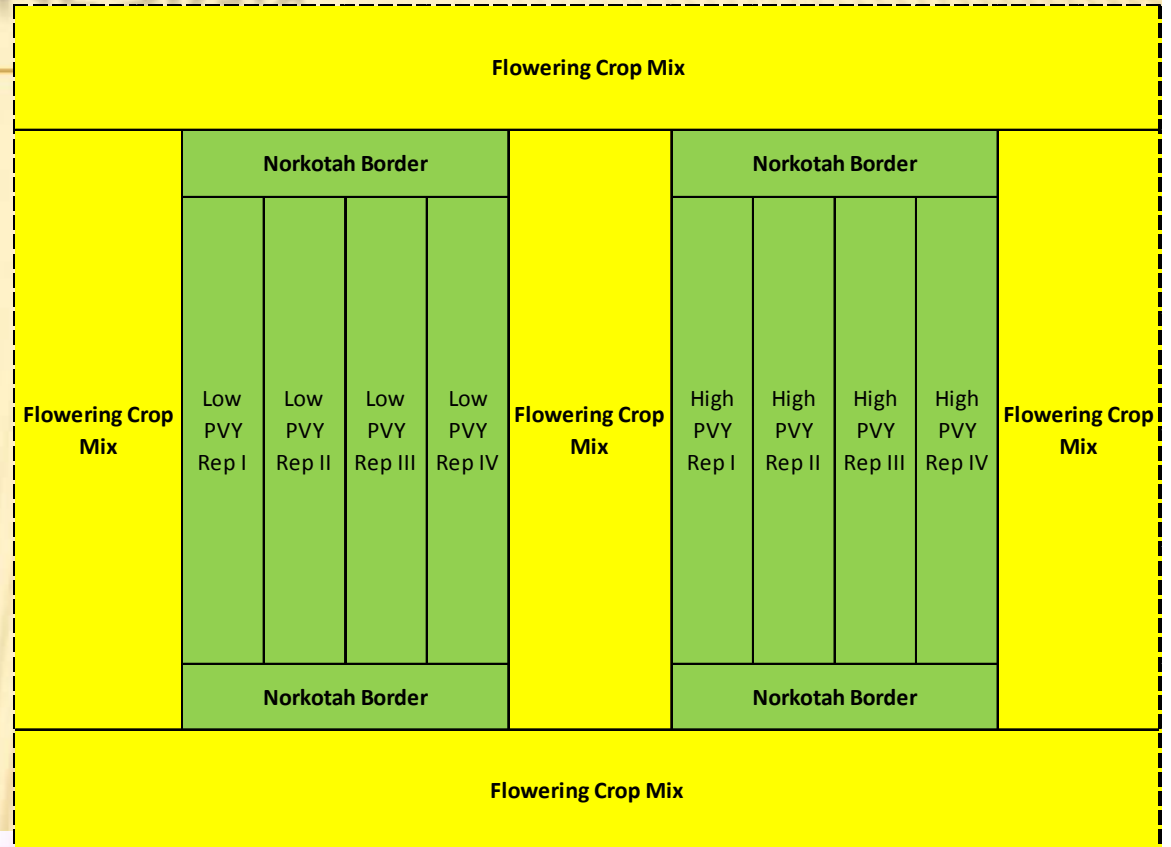


EVALUATION OF A FLOWERING CROP MIX TO REDUCE THE SPREAD OF PVY

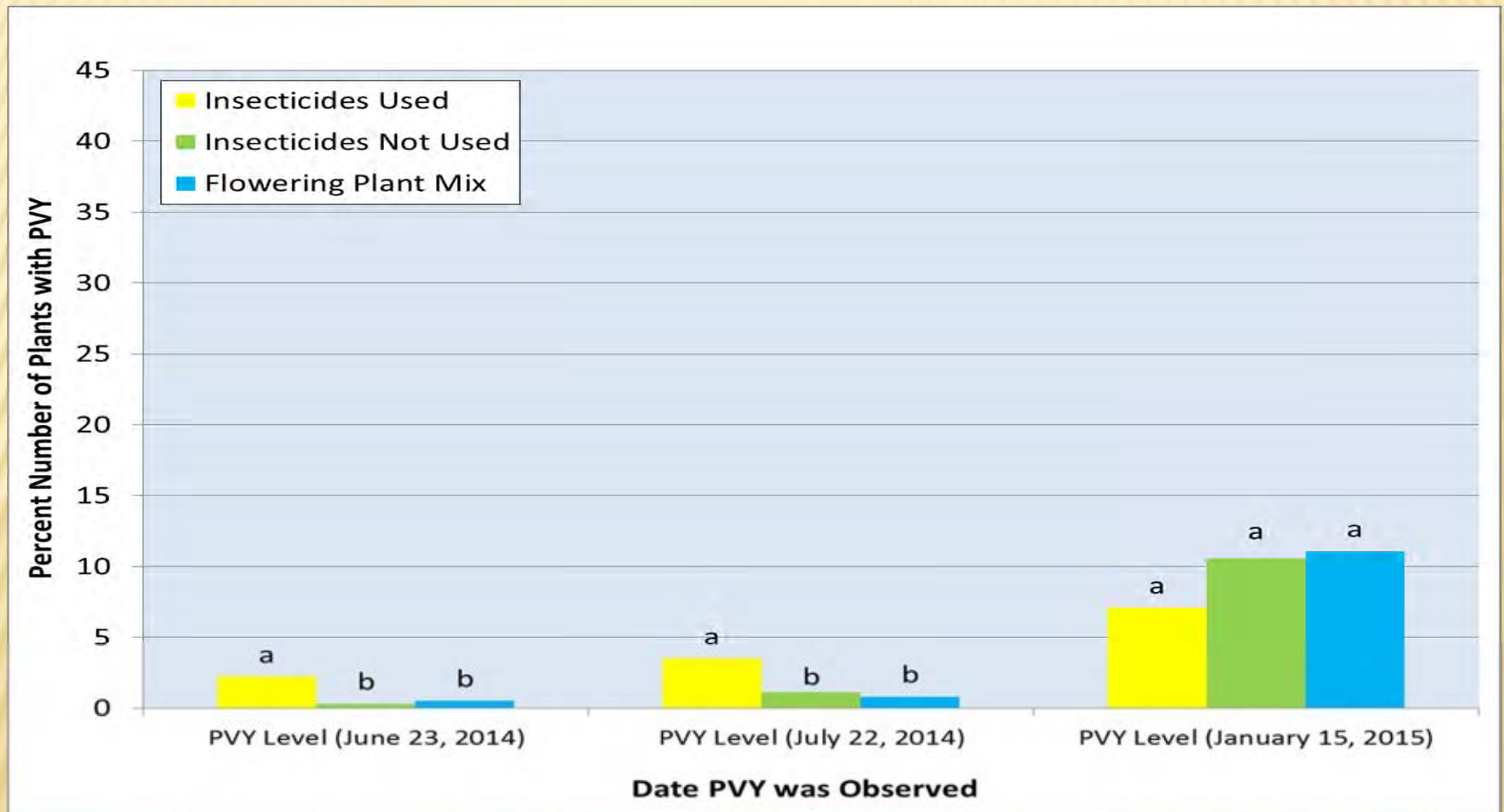
- ✘ In cooperation with Rockey Farms
- ✘ 3 different environments (adjacent to flowers, with insecticides, w/o insecticides)
- ✘ Russet Norkotah sel 8, Low(0% PVY)
High(8% PVY)
- ✘ 4 reps, 80 seed pieces per rep
- ✘ 20 different species of plants used in flowering mix (including sunflowers, buckwheat, peas, mustards, marigolds, clovers, etc.)



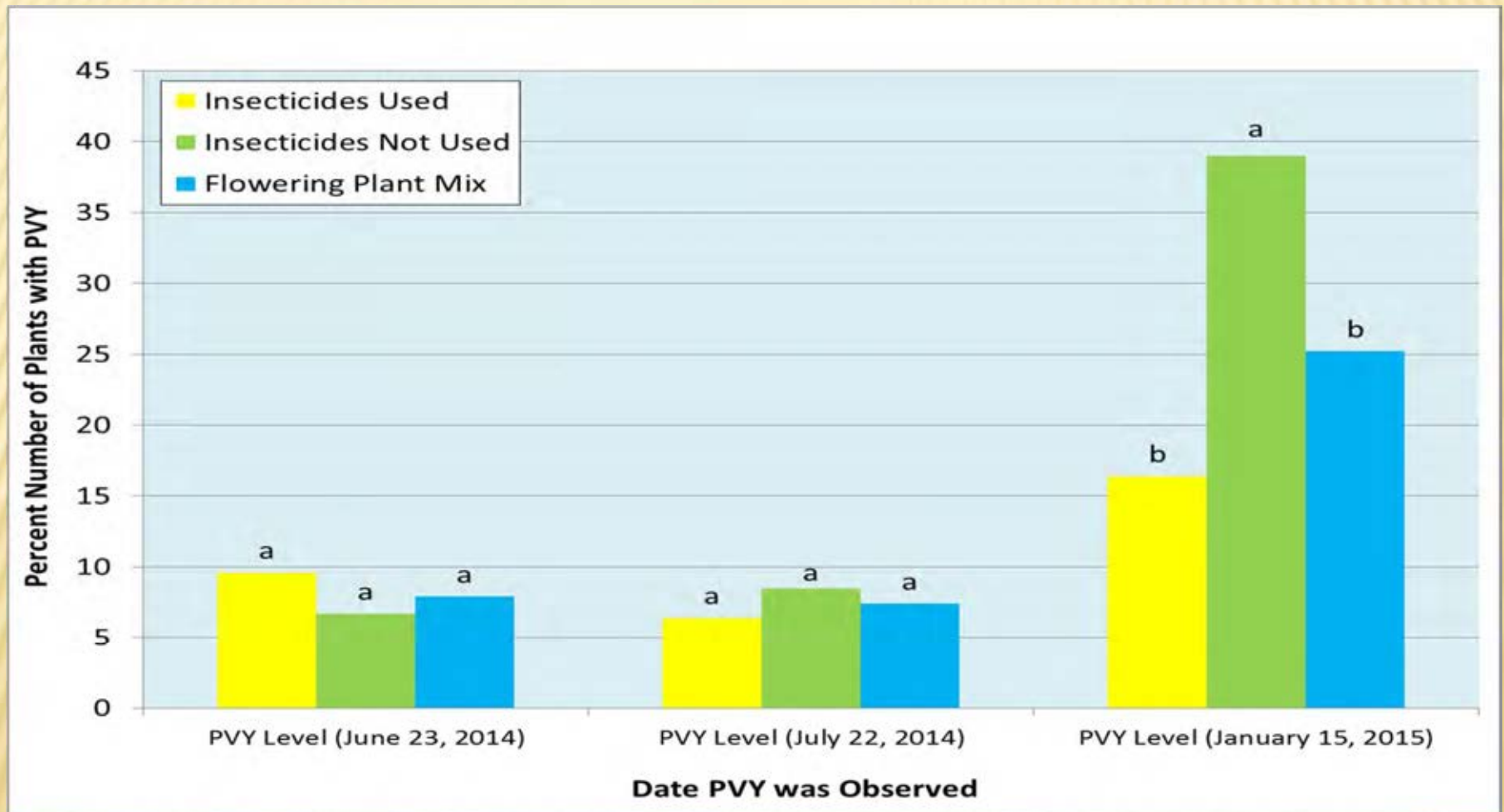
EXPERIMENTAL DESIGN



RESULTS – PVY READINGS (LOW INITIAL PVY LEVEL)



RESULTS – PVY READINGS (HIGH INITIAL PVY LEVEL)



IMPACTS!

- ✘ Potato cultivars have a wide range of susceptibilities to PVY
- ✘ The best approach for managing PVY is the use of resistant cultivars
- ✘ Planting a flowering crop mix adjacent to potatoes infected with PVY can reduce spread
- ✘ PVY is a community disease, we need to treat it that way!



THANK YOU!

- × Katy Francis
- × Mike Gray
- × Rick Haslar
- × Steve Keller
- × Carolyn Keller
- × Rocio Macias
- × PCS Staff
- × SLV Research Center Staff
- × Arthur & Keith Holland
- × Blue Sky Farms
- × Dr. Robert Davidson
- × Bothell Seed
- × Price Farms Certified Seed
- × Rockey Farms
- × Salazar Seed
- × Worley Family Farms
- × Zapata Seed Company
- × CPAC Area II
- × Bayer Crop Sciences
- × BASF
- × Valent
- × Frito Lay



QUESTIONS?

