Testimony of Andrew B. Plant, Plant Pathologist, Maine Potato Board to the Committee on Agriculture, Conservation and Forestry
April 15, 2025

LD 1323 – An Act to Prohibit the Use of Neonicotinoid Pesticides and the Use and Sale of Neonicotinoid-treated Seeds

Senator Talbot Ross, Representative Pluecker and members of the Agriculture, Conservation and Forestry Committee, I am Andrew Plant, Plant Pathologist for the Maine Potato Board. I am here today to speak in opposition to LD 1323.

Potato Virus Y (PVY) is a mechanically and aphid transmitted disease of potatoes. It is one of the top reasons for seed lot rejection and down-grading in the world, and the top reason locally in the state of Maine. PVY can cause substantial direct and indirect economic loss to potato growers and processors due to rejection and downgrading of seed lots, yield drag associated with planting infected seed and current-season spread, and quality issues in tablestock and processing potatoes making tubers and finished product unmarketable. PVY has become increasingly problematic in the past fifteen years owing in large part to its shifting population dynamics to less symptomatic recombinant strains, and rejection levels have doubled in average since new strains were first detected in our production area around 2010.

Becoming less symptomatic has removed or severely blunted two important tools from our industry's tool chest in which to manage the problem. Field certification, by which State inspectors visually assess fields for level of virus infection and remove them from seed certification if excessive, and roguing, by which trained farm workers scout and remove symptomatic plants from seed fields so as to prevent further spread of the virus.

Current PVY management focuses on a multi-tiered approach consisting of robust post-harvest laboratory testing in order to plant low inoculum seed, using systemic insecticides at planting to control potato-colonizing aphids, and frequent (every 7 days or less), spraying of stylet oils beginning at 20-30% crop emergence and continuing until vine kill to control spread from non-colonizing aphids.

Non-colonizing aphids are those that don't settle to feed on the potato crop, but will repeatedly probe the crop to assess its suitability to feed, and that is all the time PVY needs to spread from plant- to- plant. These non-colonizing aphids come from any surrounding vegetation, which in large part for the potato industry are rotation crops to include soybeans, corn, and small grains. Each of these crops has its own suite of aphid colonizers (such as corn leaf aphid, soybean aphid, English grain aphid, bird cherry oat aphid etc) that will have direct and indirect impacts on both their main host as well as their neighboring potato fields.

Restricting the use of neonic insecticides, whether directly to potato crops, or to the rotation crops that are utilized throughout potato production will directly affect the success of our State's potato production. It will lead to decreased yields, decreased quality, decreased marketability,

increased importation of seed and the concomitant risk of quarantine pest introduction, and an increased cost of production.

Removing the neonicotinoid tool from our tool chest will likely lead to more frequent applications of less effective insecticides resulting in an overall increase in amount of active ingredients applied to our crops.

I've limited this testimony to speak only about a singular aspect of this proposed prohibition. In brief, consideration to finding control alternatives and to ascertain the amount (both in scope and quantity) of active ingredients required to suitably replace neonicotinoid insecticides will be necessarily as extensive as it's labeled uses: Aphids, Colorado potato beetles, flea beetles, leafhoppers, cereal leaf beetles, psyllids, wireworms, and seed maggots.

I ask that you vote ought not to pass on LD 1323. Thank you for your time today and I will be happy to answer any questions you have.