

Appendix 3. List of collaborators and participating institutions by objective.

Objective 1: Conduct multidisciplinary conventional and molecular marker-assisted breeding, germplasm enhancement, and early-generation selection research to improve potato productivity and quality for important Eastern US markets.

Objective 1a. Development of a Collaborative Approach to Potato Breeding, Selection, and Variety Development in the Eastern US. Collaborators: G. Porter and Potato Breeding (U ME, ME), W. De Jong, D. Halseth and W. Tingey (CU, NY), C. Hutchinson and D. Gergala (UFL, FL), M. Henninger (Rutgers, NJ), B. Christ (PSU, PA), R. Veilleux (Va Tech, VA), M. Kleinhenz (OSU, OH), C. Yencho and M. Clough (NCSU, NC), K. Haynes (USDA-ARS, MD).

Objective 1b. Quantitative, molecular genetic and biochemical studies to improve processing quality and resistance to internal heat necrosis.

Improved Specific Gravity - Collaborators: K. Haynes (USDA-ARS, MD), R. Veilleux (VA Tech, VA).

Improved Resistance To IHN - Collaborators: M. Henninger (Rutgers, NJ), R. Veilleux (Va Tech, VA), C. Yencho, M. Clough and B. Sosinski (NCSU, NC), R. Jones, B. Whitaker and K. Haynes (USDA, MD).

Objective 1c. Further develop and capitalize on the improved genetic base for long-term cold storage processing ability. Collaborators: K. Haynes (USDA-ARS, MD), W. De Jong and D. Halseth (CU, NY), B. Christ (PSU, PA); Potato Breeding and G. Porter (UME, ME).

Objective 1d. Improve the genetic base of specialty potatoes, such as yellow-fleshed and red-skinned types.

Yellow-Fleshed Potatoes - Collaborators: K. Haynes (USDA-ARS, MD), M. Henninger (RU, NJ), D. Halseth (CU, NY), M. Kleinhenz (OH), C. Hutchinson (UFL, FL).

Red-Skinned, Purple-Skinned, and Other High-Value Novel-Colored Potatoes - Collaborators: K. Haynes (USDA-ARS, MD), W. De Jong and D. Halseth (CU, NY), C. Yencho and M. Clough (NCSU, NC), D. Lambert and Potato Breeding (U ME, ME).

Objective 2: Use novel and improved potato germplasm to reduce the impact of economically important potato pests in the Eastern US

Objective 2.a. Improve the resistance of potato to economically significant pests in the East.

Late Blight - Collaborators: K. Haynes, R. Jones (USDA,-ARS MD), B.J. Christ (PSU, PA), Potato Breeding, D. Lambert, B. de los Reyes (UME, ME), W. De Jong (CU, NY).

Early Blight - Collaborators: K. Haynes, R. Jones (USDA-ARS, MD), B. Christ, J. Santa Cruz (PSU, PA).

Resistance to Scab - Collaborators: K. Haynes, L. Wanner (USDA-ARS, MD), B. Christ (PSU, PA)

Golden Nematode and Gene Mapping for Resistance - Collaborators: W. De Jong (CU, NY).

Colorado Potato Beetle and Potato Leafhopper - Collaborators: W. De Jong and W. Tingey (CU, NY), C. Yencho and M. Clough (NCSU, NC).

Appendix 3 (cont'd). List of collaborators and participating institutions by objective.

Pink Rot Resistance - Collaborators: Potato Breeding, D. Lambert, B. de los Reyes (UME, ME)

Objective 3. Evaluate yield, quality, and pest resistance of preliminary and advanced potato breeding lines in experimental- and commercial-scale trials at multiple Eastern locations to aid industry adoption of new varieties.

Objective 3a. Evaluate Promising Selections in Standardized Trials for Early Maturity, Quality, and Storage Potential.

Seed Increase Procedure for Standardized Regional Variety Trials and Standardized Regional Variety Trial Procedures. Collaborators: G. Porter and Potato Breeding (U ME, ME), D. Halseth (Cornell, NY), C. Hutchinson and D. Gergala (UFL, FL), M. Henninger (RU, NJ), B. Christ (PSU, PA), M. Kleinhenz (OH), C. Yencho and M. Clough (NCSU,NC), R. Veilleux (VA TECH, VA).

Processing from Storage.

Collaborators: G. Porter, A. Bushway, and Potato Breeding (U ME, ME), D. Halseth (CU, NY), B. Christ (PSU, PA), K. Haynes (USDA-ARS, MD).

Objective 3b. Evaluate Promising Selections for Resistance to Potato Pests.

Early and Late Blight - Collaborators: B. Christ (PSU, PA), Potato Breeding and D. Lambert (U ME, ME), K. Haynes (USDA-ARS, MD).

Scab - Collaborators: A. Murphy (AGC, Canada); W. De Jong (CU, NY); B. Christ (PSU, PA); Potato Breeding and D. Lambert (UME, ME).

Rhizoctonia - Collaborators Potato Breeding (U ME, ME), B. Otrysko (Quebec).

Viruses - Collaborators: Potato Breeding, A. Alyokhin and G. Sewell (U ME, ME); K. Perry (Cornell, NY); D. Gergala and C Hutchinson, (UFL, FL).

Ring Rot - Collaborator: D. Lambert (U ME, ME).

Pink Rot - Collaborator: D. Lambert (UME, ME).

Objective 3c. Evaluate promising selections for sensory and nutritional quality. Collaborators: Potato Breeding, G. Porter, M.E. Camire, R. Bushway, L.B. Perkins, and A.A. Bushway (U ME, ME).

Objective 3d. Study cultural practices that optimize the performance of new potato clones and develop more sustainable agricultural systems. Collaborators: D. Halseth (CU, NY), G. Porter and Potato Breeding (UME, ME); M. Henninger (NJ), C. Hutchinson and D. Gergala (UFL, FL), C. Yencho and Mark Clough (NCSU, NC), B. Christ (PSU, PA).

Objective 3e. Classify the Eastern region environments for use in variety selection and modeling. Collaborators: D.E. Halseth (CU, NY), D. DeKoeyer (Canada), G. Porter (UME, ME), C. Hutchinson and D. Gergala (UFL, FL); B Christ (PSU, PA); C. Yencho and M. Clough(NCSU, NC); R. Veilleux (Va Tech, VA), M. Kleinhenz (OSU, OH); M. Henninger, (Rutgers, NJ).

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Objective 4. Provide timely and relevant information to stake-holders through various means including the development of a project website and a web-based potato variety performance database for use by researchers, extension, potato growers, and allied industry members. Collaborators: All project members.