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POTATO VARIETIES: THE NEWLY NAMED, THE COMMERCIAL, AND SOME THAT ARE USEFUL IN BREEDING

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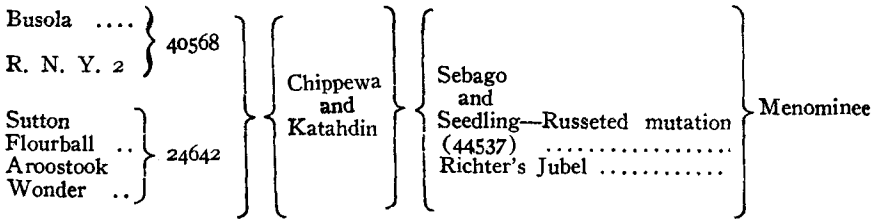
Interest is frequently expressed in the origin, history and characteristics of the newer varieties of potatoes. Information on these varieties is available in numerous publications. It was thought worth while to compile in one article selected data on the most important of these and certain other commercial and breeding varieties. The list includes some recently introduced varieties, the older varieties that are still commercially important in the West in 1940 (10)¹, in the South in 1942 (21), or in the North in 1944 (22), and some varieties (European, old U. S., and seedling) that are prominent in the parentage of the two preceding groups or that are otherwise specially interesting to the plant breeders.

The U. S. D. A. seedling numbers of certain recently introduced varieties are:

401-23 = Pontiac
528-118 = Menominee
42667 = Katahdin
42672 = Chippewa
44428 = Golden
44488 = Sebago
44639 = Houma
45075 = Earlane
46000 = Mohawk
47101 = Erie
B247 = Potomac
CS-1608 = Pawnee

¹Numbers in parentheses refer to literature cited.

Some seedlings appear more prominent in the pedigrees than do others, as for instance U.S.D.A. 24642. This seedling is resistant to mild mosaic (34) and immune to aphid transmission of virus A (30). As may be seen from the pedigrees of varieties given below, it came from a cross of Aroostook Wonder and Sutton Flourball and enters into the parentage of Chippewa and Katahdin, Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, Pontiac, Earline, Erie, and Golden. The extensive use of 24642 and Katahdin as parents may be seen in the following combinations of pedigrees:²

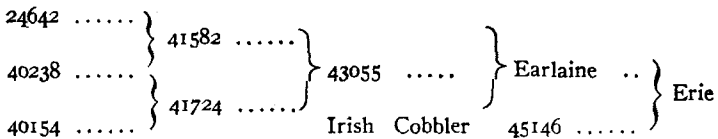


Katahdin	}	}	Houma
Chas. Downing			

Katahdin	}	}	Mohawk and Sequoia
Green Mountain			

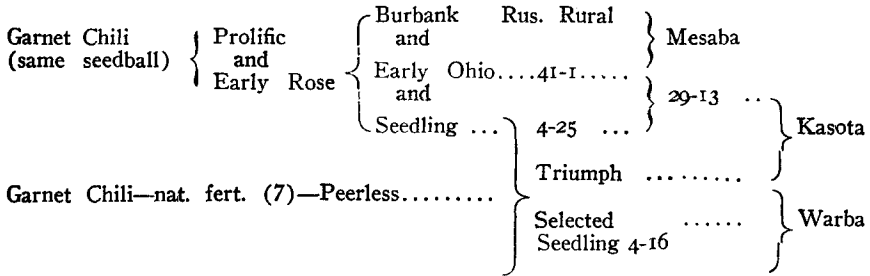
Katahdin	}	}	Pawnee and Potomac
R. N. Y. 2.....			

Katahdin	}	}	Pontiac
Triumph			



²The arrangement of names is not intended to indicate which is the pollen variety in any cross.

The important use of Garnet Chili as a parent may be seen in the following combination of pedigrees:



NAMED VARIETIES³

AMERICAN GIANT. (See AROOSTOOK WONDER and WHITE ROSE.)
 AROOSTOOK WONDER. *Origin*: This variety is said (38) to have been in Maine before 1908. It is also said (39) to be the same as American Giant which originated in New York before 1881. The variety Aroostook Wonder enters into the parentage (see pedigree combinations above) of Chippewa and Katahdin, Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, Pontiac, Earline, Erie and Golden.

BLISS TRIUMPH. (=TRIUMPH (39).)
 BROWN BEAUTY. (=PROLIFIC (7, 10).)

BURBANK. *Origin*: In 1873 by Luther Burbank (38). It is a seedling of Early Rose (38, 39). (See pedigree combination from Garnet Chili, above.) It is grown in the West (10) and in the South (21).

BUSOLA. This variety was obtained by the U. S. D. A. from Russian Poland in 1914 (according to a letter from F. J. Stevenson). It enters into the parentage (see pedigree combination on page 2) of Chippewa and Katahdin, Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, Pontiac, Earline, Erie, and Golden.

CHARLES DOWNING. (See IDAHO RURAL.) *Origin*: In Vermont, 1887 (38; 39). It enters into the parentage of Houma. It is grown in the West (10).

CHIPPEWA. *Origin*: U. S. D. A. (42672), 1923 (5). *Pedigree* (5): See pedigree combination on page 230. It is resistant to

³For detailed descriptions see the various references including the general ones by Davidson (8), Jehle and McPheeters (14), Lombard and Bailey (22), Salaman (26), Stevenson *et al.* (31, 32, 33, 34), and Stuart (38, 39), and tables 1 and 2 compiled mostly from these sources.

mild mosaic (5, 22, 33), virus Y (15), and net necrosis (22, 36). Chippewa is popular for potato chips and french fries (22). It enters into the parentage of Sebago and Menominee. It is named after a tribe of Indians who occupied the region from Lake Huron to North Dakota (5).

DAKOTA RED. (See JERSEY REDSKIN). *Origin*: In Vermont from Pringle's hybrid seed (38), before 1883 (38, 39). It is grown in the South (21).

EARLAINE. *Origin*: U. S. D. A. (45075), 1930 (4). *Pedigree* (4):

Sutton Flourball	}	24642 ...	}	41582 ...	}	43055 ...	}	Earlaine
Aroostook Wonder	}	40238 ...	}	41724 ...	}	43055 ...	}	Earlaine
Busola	}	40154 ...	}	41724 ...	}	43055 ...	}	Earlaine
Irish Cobbler	}	40154 ...	}	41724 ...	}	43055 ...	}	Earlaine
Petronius	}	40154 ...	}	41724 ...	}	43055 ...	}	Earlaine
Triumph	}	40154 ...	}	41724 ...	}	43055 ...	}	Earlaine
Irish Cobbler	}	40154 ...	}	41724 ...	}	43055 ...	}	Earlaine

Earlaine is field-resistant to mild mosaic (22, 33) and immune to aphid transmission of virus A (30). It enters into the parentage of Erie and of leafroll-resistant seedlings (36). The name is a contraction of the words "early" and "Maine" (4).

EARLAINE No. 2. *Origin*: Seedling tubers of this variety were obtained by a farmer from the U. S. D. A. without the latter knowing of it at the time. (33).

EARLY OHIO. *Origin*: 1871, as a seedling of Early Rose (38, 39). (See pedigree combination from Garnet Chili, above.) It is grown in the North (22). It enters into the parentage of Kasota, Mesaba, and Warba.

ERIE. *Origin*: U. S. D. A. (47101), 1936 (3). *Pedigree* (3); See pedigree combination on page 2. Its name was selected on account of the expected adaptability of the variety to a region adjoining Lake Erie (3).

FLOURBALL. *Origin*: In England, 1895 (8). It is resistant to leafroll (26). It enters into the parentage (see pedigree combination on page 2) of Chippewa and Katahdin, Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, Pontiac, Earlaine, Erie and Golden.

TABLE I. *Some tuber and sprout characteristics of the newer varieties.*

Variety	Color	Skin	Shape	Eyes	Sprouts in Dark
Chippewa	White	Smooth	Elliptical to oblong; medium thick	Shallow	Creamy white
Earlaine	White	Smooth to flaked	Round, flat, thick	Medium shallow to shallow	Creamy white
Earlaine No. 2	Like Earlaine		Like Earlaine	Deeper than Earlaine	
Erie	White	Smooth	Spherical	Moderately deep	
Golden	White	Smooth	Round	Medium shallow. Terminal one pale rose purple	White
Houma	White	Smooth	Short, thick	Shallow to medium deep	Pale purple
Kasota	Medium red	Smooth	Roundish, medium thick	Shallow	Somewhat red at tips
Katahdin	White	Very smooth	Roundish, medium thick	Shallow, few basal	Pale lilac
Menominee	White ^a	Slightly flaky to moderately russet	Round, medium thick	Medium deep	Rose purple
Mesaba	White	Smooth to flaky	Round, thick	Shallow	Tip faintly reddish

TABLE I (continued). Some tuber and sprout characteristics of the newer varieties.

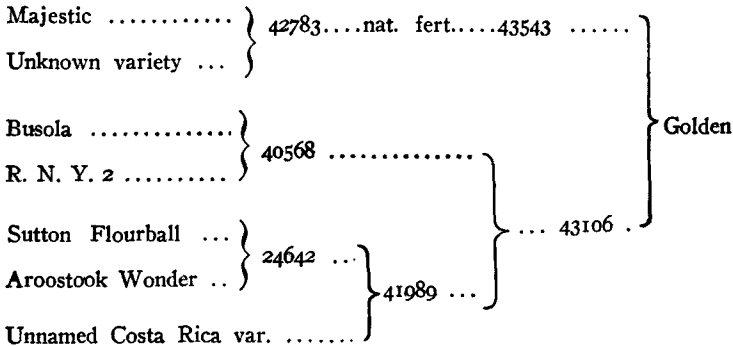
Variety	Color	Skin	Shape	Eyes	Sprouts in Dark
Mohawk	White ^a	Flaky to smooth	Elongated, thick	Shallow	
Pawnee	White	Smooth	Roundish, medium thick	Shallow, very few	Somewhat violet
Pontiac	Red	Smooth ^a	Round, thick	Medium deep	
Potomac	White	Smooth ^a	Round		
Sebago	White	Smooth	Nearly round, medium thick	Shallow	Trace of pink
Sequoia	White	Smooth to russeted	Roundish, thick	Shallow	Creamy white
Warba	Creamy white except for pink eyes			Deep	

^aAccording to a letter from F. G. Stevenson.

FRISCO. This was secured from Holland (2). It is immune to ring rot (2) and resistant to leafroll (34).

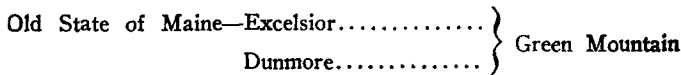
GARNET CHILI. *Origin*: New York, 1853 (38). It is a seedling of Rough Purple Chili (38, 39). It enters into the parentage of Prolific, Early Rose, Burbank, Early Ohio, Triumph, Kasota, Warba, and Mesaba. (See pedigree combination above.)

GOLDEN. *Origin*: U. S. D. A. (44428), 1928 (5). *Pedigree* (5):



The name probably was suggested by the color of the tuber flesh.

GREEN MOUNTAIN. *Origin*: In Vermont, 1878 (38, 39). *Pedigree* (38, 39):



It is grown in the South (21) and in the North (22). It enters into the parentage of Mohawk and Sequoia. The name probably was derived from the Green Mountain Range in Vermont.

HARMONY BEAUTY. *Origin*: In 1880 at Harmony, Maine, from a seedball of unknown parentage, being known at first as Mitchell (23). It is still grown extensively in central Maine where leafroll is prevalent and spreads rapidly each season.

HOUMA. *Origin*: U. S. D. A. (44639), 1929 (6). *Pedigree* (6): See pedigree combination on page 230. It is resistant to mild mosaic (22, 32, 33), yellow dwarf (22), and net necrosis (33). It rivals Green Mountain for cooking (22). The name is that of a place in Louisiana (6, 31).

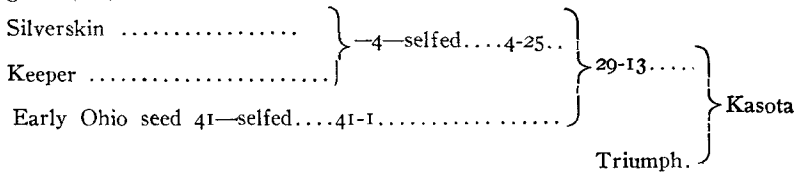
IDAHO RURAL. (=CHARLES DOWNING (39).) It is grown in the West (10).

IMPERIA. This is a Swedish variety (27). It is resistant to leafroll (34). It enters into the parentage of leafroll-resistant seedlings (36).

IRISH COBBLER. This is a sport of Early Rose found about 1876 (39). It is grown in the West (10), in the South (21), and in the North (22). It enters into the parentage of Earleine and Erie.

JERSEY REDSKIN. (=DAKOTA RED (21).) (Probably =Crimson Beauty renamed (9).)

KASOTA. *Origin*: Minnesota and Nebraska, 1934 (20). Pedigree (20):



It is resistant to *Fusarium solani* v. *eumarti* (20), and somewhat resistant to late blight (20). The name (20, 22) is an Indian word for a clearing, but was selected as a combination of the last syllable of "Nebraska" and the last part of "Minnesota."

KATAHDIN. *Origin*: U. S. D. A. (42667), 1923 (5, 7). *Pedigree* (5, 7): See pedigree combination on page 230. It is resistant to mild mosaic (5, 7, 28, 29, 32, 33), immune to aphid transmission of virus A (30), resistant to latent mosaic (28, 29), resistant to virus Y (16), resistant to yellow dwarf (22), and resistant to net necrosis (33, 36). It enters into the parentage of Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, and Pontiac. Its name is the Indian name for the highest mountain in Maine (5, 7).

KEPPLESTONE KIDNEY. This is grown in Great Britain (8). It enters into the parentage of leafroll-resistant seedlings (36).

MCCORMICK. *Origin*: Indiana (38) in 1882 (38, 39). It is grown in the South (21).

MENOMINEE. *Origin*: U. S. D. A. (528-118), 1935 (40). *Pedigree* (40): See pedigree combination on page 230. It is resistant to scab and late blight (40). The name is that of an Algonquian tribe of Indians who have lived near the Menominee River which is between Wisconsin and Michigan, northwest of Lake Michigan (40).

MESABA. *Origin*: Minnesota A. E. S. and U. S. D. A., before 1933 (17). Pedigree (17):

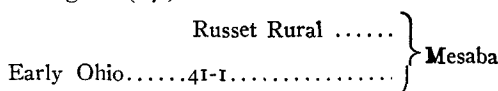


TABLE 2. *Some plant characteristics of the newer varieties*

Variety	Duration	Habit	Stem Internode Color	Leaves	Flowers
Chippewa	Medium late	Medium to large, spreading	Slightly reddish purple	Long, broad, with terminal leaflet often lobed	Lilac with white tips
Earlaine	Early	Medium, somewhat spreading	Green	Medium long and wide	White
Earlaine No. 2	Midseason	Somewhat sprawling	Basal faintly purple	Light green, flat	White
Erie	Medium late		Light green	Light green	White
Golden	Late	Large, spreading	Slightly reddish purple	Medium wide and long	White
Houma	Midseason to late	Vigorous, medium to large, erect to spreading	Green to faint purple	Long, broad, flat, light green	White, many
Kasota	Midseason	Medium to large, compact	Reddish	Medium long, broad, dark green	Light lavender
Katabdin	Medium to late	Medium to large, spreading	Green or slightly reddish purple	Long, broad, flat, dark green	Light lilac
Menominee	Late	Medium to large, upright	Slightly reddish purple	Long, narrow	Large, medium lilac tips

TABLE 2 (continued). Some plant characteristics of the newer varieties

Variety	Duration	Habit	Stem Internode Color	Leaves	Flowers
Mesaba	Early	Medium large, erect compact	Reddish	Somewhat rugose; medium long, broad	Pale lilac, very small
Mohawk	Midseason to late	Like Green Mountain		Like Green Mountain	White with pink tips
Pawnee	Medium early	Medium, spreading	Purplish	Long, medium broad	Petunia violet
Pontiac	Late	Vigorous upright		Large, dark green, rough textured	
Potomac	Late	Vigorous, upright	Vigorous, upright ^a		
Sebago	Late	Vigorous, large, upright	Reddish purple	Medium long, broad, open, dark green	Lilac, many
Sequoia	Late	Very vigorous, large, erect	Green	Medium	White
Warba	Early				Light pink to lavender, sparse

^aAccording to a letter from F. G. Stevenson.

(See also pedigree combination from Garnet Chili above.) The name probably was derived from that of the Masabi Mountains, the highest point in Minnesota, and is the name of a nearby town.

MOHAWK. *Origin*: U. S. D. A. (46000) before 1935 (13). *Pedigree* (13): See pedigree combination on page 230. It is resistant to mild mosaic (13, 22). The name is that of an Indian tribe formerly inhabiting what is now the Mohawk Valley in New York.

NETTED GEM. (=RUSSET BURBANK (10, 39).)

NITTANY COBBLER. (=IRISH COBBLER (32, 33).)

NO BLIGHT. (=PRESIDENT (1).) This is resistant to late blight (34, 37).

PAWNEE. *Origin*: U. S. D. A. (CS-1608) (25) and Colorado A. E. S. before 1940 (11). *Pedigree* (11): See pedigree combination on page 230. It is resistant to scab (22) and has a tough skin (11). It bears the name of certain scenic buttes in Colorado and also the name of an Indian tribe which once roamed an area extending from Nebraska to Texas (11).

PEACHBLOW. This is grown in the West (10).

PENNIGAN. (=WHITE RURAL (32).) (=RURAL NEW YORKER No. 2 (33).)

PERFECT PEACHBLOW. (See RED McCLURE.) This is grown in the West (10).

PETRONIUS. This was obtained by the U. S. D. A. from Austria in 1912 (according to a letter from F. J. Stevenson). It enters into the parentage of Earline and Erie.

PONTIAC. *Origin*: U. S. D. A. (401-23), 1931 (24). *Pedigree* (24): See pedigree combination on page 230. It is resistant to yellow dwarf and drought (24). The name is that of a chief of the Ottawa Indians formerly a tribe of the Great Lakes region (24).

POTOMAC. *Origin*: U. S. D. A. (B247) (25) and Maryland A. E. S. (14). *Pedigree* (11, 25): See pedigree combination on page 2. It is somewhat resistant in the tubers to late blight (31) and is high in vitamin C (25). The name is that of a river in Maryland.

PRESIDENT. (=PAUL KRUGER, a Dutch variety (8).) See NO BLIGHT. It is resistant to late blight (1), immune in tubers to late blight (1), and immune to ring rot (2).

PROLIFIC. (See BROWN BEAUTY). *Origin*: In Vermont, 1861 (38). *Pedigree*: This variety and Early Rose were seedlings from the same seedball of Garnet Chili (38). Prolific is grown in the West (10).

RED McCLURE. (=PERFECT PEACHBLOW (10).) *Origin*: In

Colorado, 1910 (38). *Pedigree*: This variety started as a sport from Improved Peachblow (38).

RED WARBA. *Origin*: In Minnesota, 1933 (18). *Pedigree*: A mutant chimera from Warba (18).

RICHTER'S JUBEL. This variety is German (34). It is resistant to scab (34). It enters into the parentage of Menominee.

RURAL NEW YORKER No. 2. *Origin*: Before 1888 (38). It is grown in the West (10), in the South (21), and in the North (22). It enters into the parentage (see pedigree combination on page 230) of Chippewa and Katahdin, Sebago, Menominee, Houma, Mohawk and Sequoia, Pawnee and Potomac, Pontiac, and Golden.

RUSSET BURBANK. (See NETTED GEM.) (=CALIFORNIA RUSSET (38, 39).) *Origin*: Sport of Burbank, 1908 (39). It is grown in the West (10).

RUSSET RURAL. (=RURAL RUSSET=LATE PETOSKEY (38).) *Origin*: 1908 (38). It is grown in the South (21) and in the North (22). It enters into the parentage of Mesaba.

SEBAGO. *Origin*: U. S. D. A. (44488) before 1932 (35). *Pedigree* (35): See pedigree combination on page 230. It is resistant to late blight (1, 22, 32, 33, 34), mild mosaic (22, 32, 34, 35), yellow dwarf (22, 31), net necrosis (31, 36), and brown rot in Florida (31).

SEQUOIA. *Origin*: North Carolina A. E. S. and U. S. D. A. 1931 (12). *Pedigree* (12): See pedigree combination on page 230. The vines are resistant to late blight, flea beetles, and leafhoppers (12, 22, 32). The name is that of a Cherokee Indian chief born in what is now North Carolina (12).

SPAULDING ROSE (=SPAULDING No. 4=ROSE No. 4 (38).) *Origin*: 1904 (39). It is grown in the South (21) and in the North (22).

TRIUMPH. *Origin*: Connecticut, 1878 (38, 39). *Pedigree* (38): See pedigree combination from Garnet Chili above. It is grown in the West (10), in the South (21), and in the North (22). It enters into the parentage of Earlane, Erie, Kasota, Pontiac, and Warba.

WARBA. *Origin*: In Minnesota before 1933 (19). *Pedigree* (19): See pedigree combination from Garnet Chili above. It is resistant to mild mosaic (19, 22) and to yellow dwarf (22).

WHITE ROSE. (=AMERICAN GIANT (10, 14). However, Lombard *et al.* state (23) that we cannot be sure that the original White Rose is the modern White Rose or the modern American Giant, or

that the original American Giant is the modern American Giant or the modern White Rose. It is grown in the West (10) and in the South (21).

LITERATURE CITED

1. Bonde, Reiner, F. J. Stevenson, and C. F. Clark. 1940. Resistance of certain potato varieties and seedling progenies to late blight in the tubers. *Phytopath.* 30:733-748.
2. ———, ———, ———, and Robert V. Akeley. 1942. Resistance of certain potato varieties and seedling progenies to ring rot. *Phytopath.* 32:813-819.
3. Bushnell, John, J. P. Slesman, and F. J. Stevenson. 1945. Erie, a late potato adapted to Ohio. *Amer. Potato Jour.* 22:29-32.
4. Clark, C. F., and F. J. Stevenson. 1938. The Earline potato, a new early variety. U.S.D.A. Circ. 493.
5. ———, ———. 1935. The Katahdin, Chippewa, and Golden potatoes. U.S.D.A. Circ. 374.
6. ———, ———, and J. C. Miller. 1936. The Houma potato: a new variety. U.S.D.A. Circ. 420.
7. ———, William Stuart, and F. J. Stevenson. 1931. The Katahdin potato; a new variety. *Amer. Potato Jour.* 8:121-125.
8. Davidson, W. D. 1931, 1932. Potato growing for seed purposes. Identification of varieties of potatoes from characteristics of foliage, flower and tuber. *Jour. Dept. Agr. Ireland.* Vols. 30 and 31. (Reprint.)
9. Drain, Brooks, D. 1933. Jersey Redskin: a fall-crop Irish potato. *Tenn. Agr. Exp. Sta. Bul.* 148.
10. Edmundson, W. C. 1940. Potato production in the Western States. U.S.D.A. Farmers' Bull. 1843.
11. ———, L. A. Schaal, and A. M. Binkley. 1943. The Pawnee potato. U.S.D.A. Circ. 665.
12. Gardner, M. E., Robert Schmidt, and F. J. Stevenson. 1945. The Sequoia potato: a recently introduced insect-resistant variety. *Amer. Potato Jour.* 22:97-103.
13. Hardenburg, E. V., and F. J. Stevenson. 1943. Mohawk: a new baking potato. *Amer. Potato Jour.* 20:79-86.
14. Jehle, R. A., and Margaret McPheeters. 1944. Quality, adaptability and disease resistance of potato varieties. *Md. Agr. Exp. Sta. Bull.* X2.
15. Jones, Leon K., and C. L. Vincent. 1937. The susceptibility of potatoes to the vein-banding virus. *J.A.R.* 55:69-79.
16. ———, ———, and Earl F. Burk. 1940. The resistance of progeny of Katahdin potatoes to viroses. *J.A.R.* 60:631-644.
17. Krantz, F. A., and A. G. Tolaas. 1938. The Mesaba potato. *Amer. Potato Jour.* 15:89-91.
18. ———, ———. 1939. The Red Warba potato. *Amer. Potato Jour.* 16:185-190.
19. ———, ———. 1933. The Warba: a new early potato. *Minn. Hort.* 61:137. *Abst. in E.S.R.* 69:795. 1933.
20. ———, ———, H. O. Werner, H. W. Goss, and J. H. Jensen. 1943. The Kasota potato. *Amer. Potato Jour.* 20:25-27.
21. LeClerg, E. L. 1942. Potato production in the Southern states. U.S.D.A. Farmers' Bull. 1904.
22. Lombard, P. M., and Bailey E. Brown. 1944. Potato production in the Northeastern and North Central States. U.S.D.A. Farmers' Bull. 1958.
23. ———, ———, E. V. Hardenburg, C. H. Metzger, J. C. Miller, and William Stuart. 1942. Report of potato variety nomenclature committee. *Amer. Potato Jour.* 19:68-71.
24. Moore, H. C., and E. J. Wheeler. 1939. The Pontiac potato. *Mich. Agr. Exp. Sta. Quart. Bull.* 21:174-175

25. Murphy, Elizabeth F., W. Franklin Dove, and Robert V. Akeley. 1945. Observations on genetic, physiological, and environmental factors affecting the vitamin C content of Maine-grown potatoes. *Amer. Potato Jour.* 22:62-83.
26. Salaman, Redcliffe N. 1926. *Potato varieties*. Cambridge Univ. Press. London. 378 p.
27. ———. 1943. Recent research in potato breeding. *Empire Jour. Exp. Agr.* 11:125-139.
28. Schultz, E. S., C. F. Clark, Reiner Bonde, W. P. Raleigh, and F. J. Stevenson. 1934. Resistance of potato to mosaic and other virus diseases. *Phytopath.* 24:116-132.
29. ———, ———, W. P. Raleigh, F. J. Stevenson, Reiner Bonde, and J. H. Beaumont. 1937. Recent developments in potato breeding for resistance to virus diseases. *Phytopath.* 27:190-197.
30. ———, ———, and F. J. Stevenson. 1940. Resistance of potato to viruses A and X, components of mild mosaic. *Phytopath.* 30:944-951.
31. Stevenson, F. J. 1944. Potato breeding, whither bound? *Amer. Potato Jour.* 21:192-199.
32. ———. 1940. Potato varieties recently distributed to growers in the United States. *Amer. Potato Jour.* 17:217-235.
33. ———, and R. V. Akeley. 1942. Newer potato varieties can be produced with less labor and expense than some of the old. *Amer. Potato Jour.* 19: 153-161.
34. ———, and C. F. Clark. 1937. Breeding and genetics in potato improvement. *U.S.D.A. Yearbook 1937*. 405-444.
35. ———, ———. 1938. The Sebago potato, a new variety resistant to late blight. *U.S.D.A. Circ.* 503.
36. ———, Donald Folsom, and T. P. Dykstra. 1943. Virus leaf roll resistance in the potato. *Amer. Potato Jour.* 20:1-10.
37. ———, E. S. Schultz, C. F. Clark, Lillian Cash, and Reiner Bonde. 1937. Breeding for resistance to late blight in the potato. *Phytopath.* 27:1059-1070.
38. Stuart, William. 1918. Group classification and varietal descriptions of some American potatoes. *U.S.D.A. Bull.* 176.
39. ———. 1937. *The potato. Its culture, uses, history and classification*. 4th ed. Lippincott.
40. Wheeler, E. J., F. J. Stevenson, and H. C. Moore. 1944. The Menominee potato: a new variety resistant to common scab and late blight. *Amer. Potato Jour.* 21:305-311.

DDT AND OTHER NEW MATERIALS FOR SPRAYING POTATOES

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Copper sulfate applied to potatoes in the form of bordeaux mixture is used extensively for the control of the potato leafhopper, the potato flea beetle, early blight, and late blight. However, entomologists and plant pathologists are striving constantly to provide insecticides and fungicides that are more effective against potato pests and which can be less frequently applied than the older pesticides. The purpose of this paper is to present data concerning the effectiveness of DDT (dichlorodiphenyl-trichloroethane), Methasan (zinc-dimethyl-dithiocarbamate),