

2023 OHIO POTATO GERMPLASM EVALUATION REPORT

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IN COOPERATION WITH
THE
NORTHEAST REGIONAL PROJECT (NE-2231)



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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OHIO POTATO GERMPLASM EVALUATIONS - 2023

Summary

Ohio cooperates with private and public breeders in the U.S. and elsewhere in evaluating varieties and experimental lines of fresh and processing potatoes. A total of one hundred-thirty distinct varieties and experimental lines developed in four breeding programs were evaluated in 2023 (Table 1). Entries were placed into one of four experiments completed at the Ohio Agricultural Research and Development Center at The Ohio State University (OARDC) in Wooster, Ohio. The experiments are the Northeast Regional Project 2231 (NE-2231), Triple Observation (OBT), Double Observation (OBD) and Single Observation (OBS). Named varieties were included in one study, and numbered entries in four studies. Entries were contributed by breeding programs in Maine (ME), New York (NY), North Carolina (NC) and USDA. Entries are listed in Table 2 and include a total of one hundred-thirteen varieties contributed by ME, two by NY, one by NC, six by USDA and eight varieties as standards.

The studies were established to evaluate the growth and market traits of each entry when grown under non-irrigated conditions in Ohio. The fact that the trials at OARDC are not irrigated tends to affect the performance of individual entries. Marketable yield of six varieties for 2013-2023 at OARDC are shown in Figure 1.

Procedures

Planting, Stand Establishment and Cultural Practices

Seed potatoes were cut on May 7-10, 2023 and allowed to cure under recommended temperature and humidity conditions. Plots were established on May 15, 2023. All entries in the NE-2231 experiment were replicated three times. Entries in the Observation studies were replicated once, twice or three times depending on the study. Percent stand was recorded at 3, 4 and 5 weeks after planting.

Table 3 and Figure 2 contain plot management and climatic data for the study site, located on a well-drained Wooster silt loam. Pest, weed, and disease pressure were minimized using procedures and materials consistent with local commercial practices, including weekly pesticide applications. Vine kill was applied on September 15, 2023.

Crop Maturity, Yield and Quality

Weeks 6-10 after planting, plots were inspected 3-4 days per week to record the first date when at least 50% of plants in a plot were flowering. The average flowering date was calculated across plots for each entry. First entry to reach 50% flower was June 26. Between weeks 10-18 after planting, visually estimated the percentage of senescence in each plot 14 times and calculated the average date for each entry when 75% was reached. The first entry reached 75% senescence on Aug 11 and was considered Day 0 of the maturity period. Maturity period was calculated from when the first entry reached 75% senescence to vine kill and was 35 days. Maturity period was evenly split into 3 categories: early (0-12 days), mid (13-24 days), late (24+ days). Average dates and maturity data presented in Table 4.

Whole plots in the NE-2231, OBT and OBD were harvested on September 29, 2023, and OBS on October 2, 2023. Tubers were initially placed in a barn under ambient conditions until October 6 and 10, 2023 and were then transferred to humidified refrigerated (40°F) storage.

On October 6 and 10, 2023, the total weight of tubers produced by each genotype (across multiple plots if present) was recorded. A subset of the harvested weight for the NE-2231, OBT and OBD plots and the entire

harvested weight for the OBS plots of each genotype were retained and sized. A subset of A-size tubers for each genotype was retained and transferred to humidified refrigerated storage and the weights of B-sized tubers recorded. October 16 and 18, 2023, the A-sized subsets were weighed, graded and weights of culled tubers recorded. B-sized tuber and cull weights were expressed as percentages of their respective subsets and then applied to the total weight of the potatoes harvested for each genotype to calculate its marketable yield (cwt/A).

After grading, tubers were retained for internal and external quality ratings and chipping quality evaluations. Tubers set aside for quality ratings and for chipping were retained in humidified refrigerated (52°F) storage until November 21, 2023.

Tubers were rated for internal and external quality on October 31-November 21, 2023. Ten randomly selected, A-size tubers, collected at grading, were scored for tuber shape, skin and flesh color, surface texture, eye depth, general appearance, and the presence or absence of hollow heart, brown center, internal necrosis, and vascular discoloration using accepted protocols. (See Tuber Data Rating System on p.29). Tubers with colored skins (reds, purples, pinks) or colored flesh (yellows, pinks) were further rated using a Sherwin-Williams color fan deck. Two to three tubers were compared against paint chips to determine the best color match.

Chipping Quality Evaluation

Tubers were held in refrigerated humidified storage (52°F) until November 6, 2023. They were removed and held under ambient conditions (approx. 70-73°F) until being processed on November 7-8, 2023.

Chipping quality evaluation began with measurements of specific gravity on October 30-November 1, 2023. Eight pounds of potatoes were placed in a hydrometer. Tuber and water temperatures and raw specific gravity was recorded. Specific gravity data was adjusted using correction factor values of either -0.0005, -0.0011 or -0.0020 as indicated by the SNAC International (See Correction Table for Specific Gravity on page 30).

On November 7 and 8, a subset of four potatoes was selected and peeled using a Rotato Express electric potato peeler or by hand for all NE-2231 and OBT entries and non-colored skin (browns, tans, buffs, creams, whites) or flesh (whites, creams) entries in OBD and OBS. Peeled potatoes were sliced to a thickness of 0.049-0.051 inches using a Hobart meat slicer (Model 410). Slices were rinsed in cold water and 20 slices fried in a Commercial Pro Model CPF32 electric fryer containing corn oil donated by Shearer's Foods, Inc. at 177-178°C (350-352°F) for approximately 3:00 minutes. After frying, the sample was visually evaluated for color using color standards in the Potato Chip Color Reference Chart published by the Snack Food Association. Chips that are very light in color are scored "1" and very dark chips are scored "6". The number of chips out of twenty with blister(s) greater than 1 cm (0.39 in) in diameter was recorded.

Results

Yield, tuber characteristics, and chipping quality data are presented in Tables 5-11. Total yield and US #1 yield averaged 375 and 306 (cwt/A) across all studies respectively, with a range of 96-586 (total) and 44-536 (US #1). Average total yield in the NE-2231 study was 333 cwt/A among varieties and 318 cwt/A among the selections, with a study range of 104-568 cwt/A. Of the 130 entries evaluated, overall tuber appearance was rated poor-fair (scale rating of 1-3), fair-good (scale rating of 4-6), and good-excellent (scale rating of 7-9) in 0, 44, and 85 entries, respectively.

1. Entries having an overall appearance rating of ≥ 7 (good-excellent) at grading:

- NE-2231: Atlantic, Chieftain, Dark Red Norland, Katahdin, Yukon Gold, AF 5933-4, AF 6194-4, AF 6200-4, AF 6522-1, AF 6565-8, AF 6601-2, B 3296-3, BNC 559-1, BNC 816-7, CO 10098-5W/Y,

- NCB 2607-3, NDAF 12238Y-2, NDAF 141Y-3, NY 177, WAF 14096-5
- Triple Observation: AAF 11546-3, AF 5280-5, AF 6206-3, AF 6206-5, AF 6526-7, AF 6550-2, AF 6551-4, AF 6552-2, AF 6566-1, AF 6575-6, AF 6652-3, AF 6655-1, AF 6669-10, AF 6671-10, AF 6675-1, AF 6694-1, AF 6878-22, AF 6880-9, AF 6886-3, AF 6896-1, AF 6898-1, AF 6963-1, AF 6963-8, AF 6965-5, NDAF 113484B-1, WAF 17045-2, WAF 17049-2
 - Double Observation: AF 6872-11, AF 6888-15, AF 6911-4, AF 6932-4, AF 6969-3, NDAF 1710Y-1
 - Single Observation: AAF 12219-1, AAF 15338-5, AF 7090-9, AF 7093-1, AF 7095-7, AF 7098-4, AF 7103-6, AF 7111-4, AF 7114-4, AF 7128-4, AF 7131-2, AF 7137-4, AF 7140-1, AF 7147-3, AF 7148-2, AF 7149-2, AF 7151-3, AF 7160-2, AF 7170-9dup1, AF 7172-1, AF 7172-3, AF 7174-3, AF 7175-1, AF 7175-2, AF 7175-4, AF 7179-6, COAF 18042-2, COAF 18053-3, NDAF 17137-7, NDAF 17153-1, NDAF 17155-6, NDAF 1821Y-3
2. Entries having an overall appearance rating of ≥ 7 (good-excellent) at grading and marketable yield \geq the study average:
- NE-2231: Dark Red Norland, Katahdin, AF 5933-4, AF 6200-4, AF 6565-8, AF 6601-2, NDAF 12238Y-2, NY 177, WAF 14096-5
 - Triple Observation: AF 6206-3, AF 6206-5, AF 6526-7, AF 6550-2, AF 6552-2, AF 6652-3, AF 6655-1, AF 6669-10, AF 6671-10, AF 6675-1, AF 6878-22, AF 6880-9, AF 6896-1, AF 6963-1, AF 6963-8, AF 6965-5, NDAF 113484B-1, WAF 17049-2
 - Double Observation: AF 6872-11, AF 6911-4, AF 6932-4, AF 6969-3
 - Single Observation: AF 7090-9, AF 7111-4, AF 7128-4, AF 7140-1, AF 7147-3, AF 7149-2, AF 7151-3, AF 7160-2, AF 7172-3, AF 7175-1, AF 7175-2, AF 7175-4, AF 7179-6, COAF 18053-3, NDAF 17153-1
3. Entries having a chip score of ≤ 3 :
- NE-2231: AF 6200-4, AF 6565-8, NY 177
 - Triple Observation: AF 5280-5, AF 6200-7, AF 6206-5, AF 6566-1, AF 6669-10, AF 6892-6, WAF 16107-2, WAF 17049-2
 - Single Observation: AF 7129-2, AF 7147-3, AF 7173-7, AF 7179-6, AF 7182-6

Table 1. Breeding programs participating in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Number	Program	Genotype Codes	2023 experiments			Single ¹ Observation	Total
			NE-2231	Triple Observation	Double Observation		
1	Univ. Maine	AAF, AF, CO, MSAFB, NDAF, WAF	14	32	12	55	113
2	Cornell Univ.	NY	2				2
4	N. Carolina Univ.	NCB	1				1
3	USDA	B, BNC	6				6
5	Various	named	8				8
		Total	31	32	12	55	130

¹ Refers to number of single row replicates. All other experiments contained two (Double Observation) or three (NE-2231, Triple Observation) replicates.

Table 2. Varieties and experimental lines planted in the potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

----- Experiments -----				
NE-2231	Triple Observation	Double Observation	Single Observation	
1 Atlantic	32 AAF 11546-3	64 AF 6872-11	76 AAF 12219-1	104 AF 7159-2
2 Chieftain	33 AF 5280-5	65 AF 6888-15	77 AAF 12227-1	105 AF 7160-2
3 Dark Red Norland	34 AF 6200-7	66 AF 6889-4	78 AAF 15338-5	106 AF 7162-3
4 Katahdin	35 AF 6206-3	67 AF 6894-12	79 AF 7090-9	107 AF 7166-1
5 Kennebec	36 AF 6206-5	68 AF 6907-15	80 AF 7093-1	108 AF 7170-7
6 Snowden	37 AF 6526-7	69 AF 6911-4	81 AF 7095-2	109 AF 7170-9dup1
7 Superior	38 AF 6550-2	70 AF 6932-4	82 AF 7095-4	110 AF 7172-1
8 Yukon Gold	39 AF 6551-4	71 AF 6938-4	83 AF 7095-7	111 AF 7172-3
9 AF 5819-2	40 AF 6552-2	72 AF 6969-3	84 AF 7098-4	112 AF 7173-7
10 AF 5933-4	41 AF 6566-1	73 AF 6978-1	85 AF 7103-6	113 AF 7174-3
11 AF 6165-9	42 AF 6575-6	74 AF 6980-1	86 AF 7108-3	114 AF 7175-1
12 AF 6194-4	43 AF 6652-3	75 NDAF 1710Y-1	87 AF 7111-4	115 AF 7175-2
13 AF 6200-4	44 AF 6655-1		88 AF 7114-4	116 AF 7175-4
14 AF 6522-1	45 AF 6665-3		89 AF 7114-12	117 AF 7179-6
15 AF 6565-8	46 AF 6669-10		90 AF 7114-15	118 AF 7182-4
16 AF 6601-2	47 AF 6671-10		91 AF 7128-4	119 AF 7182-6
17 B 3296-3	48 AF 6675-1		92 AF 7129-2	120 AF 7183-2
18 BNC 559-1	49 AF 6694-1		93 AF 7130-6	121 COAF 18042-2
19 BNC 816-7	50 AF 6878-22		94 AF 7131-2	122 COAF 18053-3
20 BNC 833-2	51 AF 6880-9		95 AF 7137-4	123 NDAF 17119-4
21 BNC 839-5	52 AF 6886-3		96 AF 7140-1	124 NDAF 17137-5
22 BNC 917-2	53 AF 6892-6		97 AF 7145-2	125 NDAF 17137-7
23 CO 10098-5W/Y	54 AF 6896-1		98 AF 7147-3	126 NDAF 17139-5
24 CO 15211-1R	55 AF 6898-1		99 AF 7148-2	127 NDAF 17153-1
25 MSAFB 609-12	56 AF 6903-3		100 AF 7149-2	128 NDAF 17155-6
26 NCB 2607-3	57 AF 6963-1		101 AF 7151-3	129 NDAF 1821Y-3
27 NDAF 12238Y-2	58 AF 6963-8		102 AF 7153-4	130 NDAF 1825Y-3
28 NDAF 141Y-3	59 AF 6965-5		103 AF 7157-7	
29 NY 171	60 NDAF 113484B-1			
30 NY 177	61 WAF 16107-2			
31 WAF 14096-5	62 WAF 17045-2			
	63 WAF 17049-2			

Figure 1. Yield of marketable, A-size tubers for 6 varieties grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2013-2023.

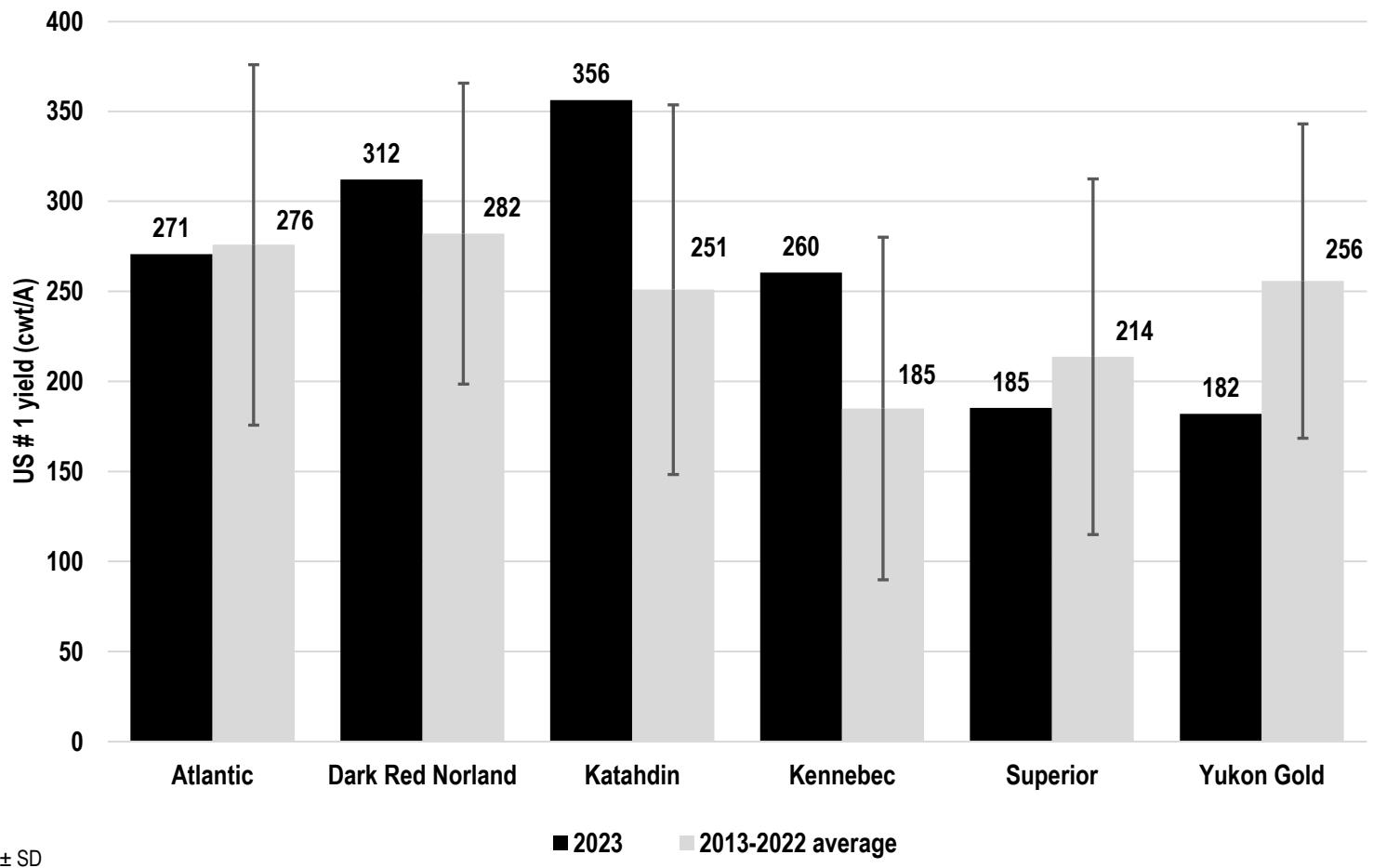
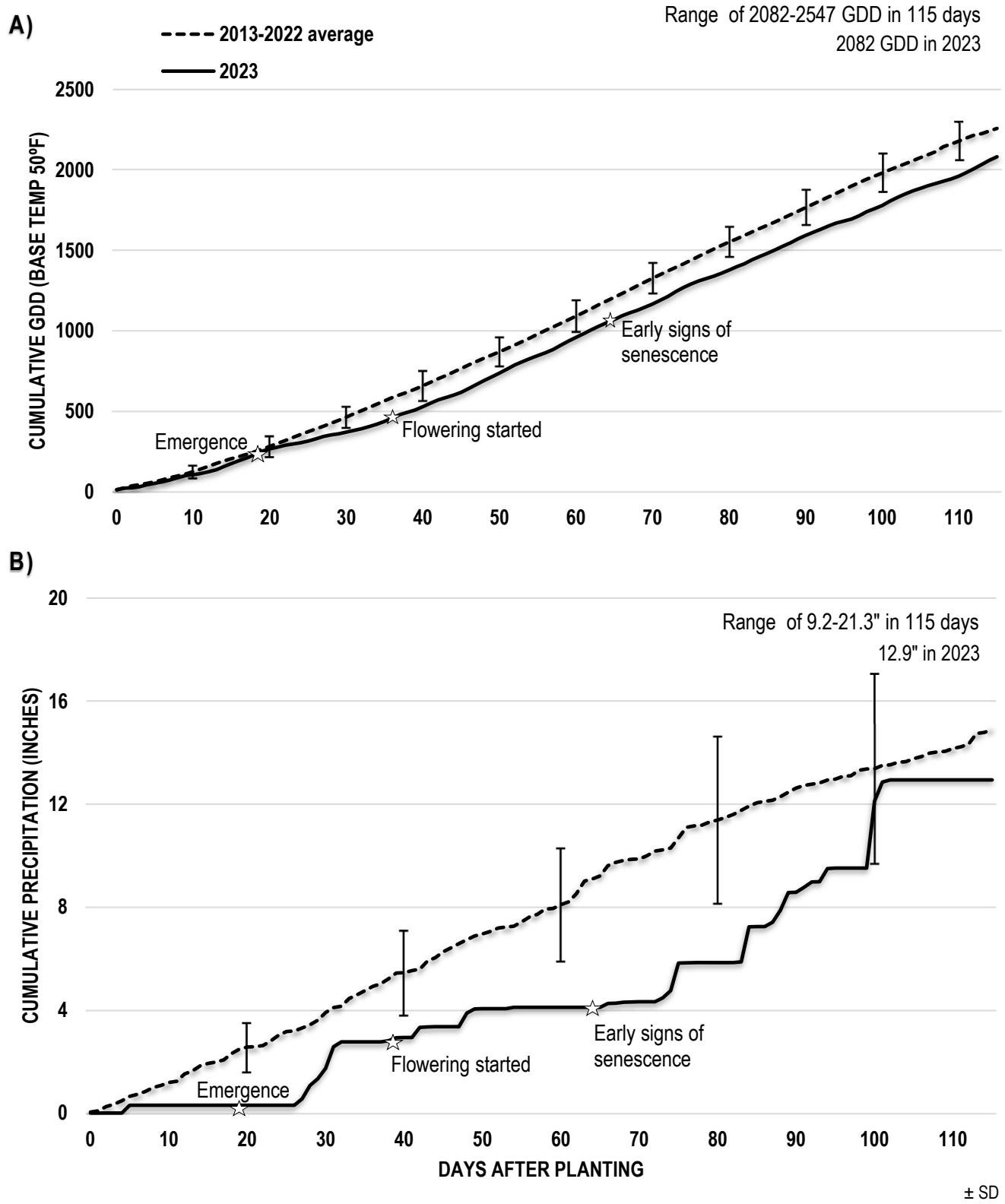


Table 3. Cultural, nutrient, and pest management practices for the potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Date planted	May-15
Date vine kill	Sep-15
2022 main crop	Fallow
Spacing (ft.) within, between row	1 x 3.3
Plot width, length (ft.)	3.3 x 30
Soil conditions at planting	Moist
Irrigation (inches)	None
Dates hilled	20-Jun

	Date	Product	Rate (A)
Fertilizer	May-15	10-20-20	400 lbs
Insecticide	May-15	Admire Pro	8 oz
Herbicide	May-16	Dual Magnum	2 pints
		Sencor	1 lbs
Cover Sprays	Jul-21	Matrix DF	1.5 oz
	Jun-28	Echo 720	20 oz
		Radiant SC	8 oz
	Jul-6	Quadris Top	8 oz
	Jul-14	Manzate Pro Stic	2 lbs
		Warrior II	1.25 oz
	Jul-19	Echo 720	20 oz
	Jul-26	Quadris Top	8 oz
		Coragen	4 oz
	Aug-2	Echo 720	20 oz
	Aug-9	Manzate Pro Stic	2 lbs
	Aug-16	Miravis Prime	10 oz
	Aug-23	Quadris Top	8 oz
Vine kill	Sep-15	Interline	21 oz

Figure 2. Historical A) cumulative growing degree days (GDD) and B) cumulative precipitation for potato germplasm evaluations at OSU-OARDC in Wooster, OH in 2013-2023 from planting through 115 days after planting. GDD was calculated using the Baskerville-Emin method¹.



¹ Baskerville, G. L.; Emin, P. 1969. Rapid estimation of heat accumulation from maximum and minimum temperatures. Ecology 50:514-517.

Table 4. Estimated dates to flowering, senescence and maturity for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Flower ¹	Senescence ²	Maturity ³	Entry	Flower	Senescence	Maturity
1 Atlantic	27-Jun	5-Sep	L	34 AF 6200-7	3-Jul	11-Sep	L
2 Chieftain	5-Jul	3-Sep	M	35 AF 6206-3	30-Jun	NA	L
3 Dk Red Norland	2-Jul	15-Aug	E	36 AF 6206-5	5-Jul	NA	L
4 Katahdin	4-Jul	12-Sep	L	37 AF 6526-7	2-Jul	8-Sep	L
5 Kennebec	7-Jul	1-Sep	M	38 AF 6550-2	4-Jul	8-Sep	L
6 Snowden	11-Jul	11-Sep	L	39 AF 6551-4	2-Jul	9-Sep	L
7 Superior	1-Jul	15-Aug	E	40 AF 6552-2	6-Jul	NA	L
8 Yukon Gold	15-Jul	1-Sep	M	41 AF 6566-1	5-Jul	NA	L
9 AF 5819-2	3-Jul	7-Sep	L	42 AF 6575-6	1-Jul	5-Sep	L
10 AF 5933-4	3-Jul	3-Sep	M	43 AF 6652-3	8-Jul	NA	L
11 AF 6165-9	29-Jun	7-Sep	L	44 AF 6655-1	5-Jul	NA	L
12 AF 6194-4	6-Jul	5-Sep	L	45 AF 6665-3	3-Jul	14-Sep	L
13 AF 6200-4	2-Jul	7-Sep	L	46 AF 6669-10	8-Jul	5-Sep	L
14 AF 6522-1	10-Jul	1-Sep	M	47 AF 6671-10	3-Jul	8-Sep	L
15 AF 6565-8	5-Jul	7-Sep	L	48 AF 6675-1	1-Jul	11-Sep	L
16 AF 6601-2	1-Jul	1-Sep	M	49 AF 6694-1	10-Jul	6-Sep	L
17 B 3296-3	29-Jun	9-Sep	L	50 AF 6878-22	1-Jul	9-Sep	L
18 BNC 559-1	30-Jun	28-Aug	M	51 AF 6880-9	3-Jul	14-Sep	L
19 BNC 816-7	5-Jul	24-Aug	M	52 AF 6886-3	17-Jul	8-Sep	L
20 BNC 833-2	NA	11-Aug	E	53 AF 6892-6	3-Jul	11-Sep	L
21 BNC 839-5	18-Jul	3-Sep	M	54 AF 6896-1	30-Jun	6-Sep	L
22 BNC 917-2	NA	15-Aug	E	55 AF 6898-1	6-Jul	4-Sep	M
23 CO 10098-5W/Y	14-Jul	3-Sep	M	56 AF 6903-3	29-Jun	18-Aug	E
24 CO 15211-1R	8-Jul	9-Sep	L	57 AF 6963-1	5-Jul	4-Sep	L
25 MSAFB 609-12	8-Jul	NA	L	58 AF 6963-8	5-Jul	8-Sep	L
26 NCB 2607-3	30-Jun	21-Aug	E	59 AF 6965-5	5-Jul	11-Sep	L
27 NDAF 12238Y-2	30-Jun	5-Sep	L	60 NDAF 113484B-1	3-Jul	3-Sep	M
28 NDAF 141Y-3	3-Jul	5-Sep	L	61 WAF 16107-2	2-Jul	7-Sep	L
29 NY 171	2-Jul	6-Sep	L	62 WAF 17045-2	3-Jul	8-Sep	L
30 NY 177	7-Jul	9-Sep	L	63 WAF 17049-2	5-Jul	NA	L
31 WAF 14096-5	5-Jul	NA	L	64 AF 6872-11	7-Jul	8-Sep	L
32 AAF 11546-3	3-Jul	6-Sep	L	65 AF 6888-15	5-Jul	30-Aug	M
33 AF 5280-5	26-Jun	3-Sep	M	66 AF 6889-4	6-Jul	6-Sep	L

¹Average date when at least 50% of the plants were flowering. (NA=never reached 50%). See page 1 for reference.

²Average date when at least 75% of plants had senescence (NA=never reached 75% before vine kill). See page 1 for reference.

³ Maturity categories: E=early, M=mid, L=late

Table 4 (cont.). Estimated dates to flowering, senescence and maturity for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Flower ¹	Senescence ²	Maturity ³	Entry	Flower	Senescence	Maturity
67 AF 6894-12	5-Jul	14-Sep	L	99 AF 7148-2	7-Jul	NA	L
68 AF 6907-15	30-Jun	26-Aug	M	100 AF 7149-2	3-Jul	14-Sep	L
69 AF 6911-4	7-Jul	NA	L	101 AF 7151-3	5-Jul	8-Sep	L
70 AF 6932-4	29-Jun	5-Sep	L	102 AF 7153-4	28-Jun	NA	L
71 AF 6938-4	4-Jul	6-Sep	L	103 AF 7157-7	3-Jul	NA	L
72 AF 6969-3	4-Jul	11-Sep	L	104 AF 7159-2	28-Jun	NA	L
73 AF 6978-1	6-Jul	NA	L	105 AF 7160-2	30-Jun	8-Sep	L
74 AF 6980-1	5-Jul	6-Sep	L	106 AF 7162-3	5-Jul	NA	L
75 NDAF 1710Y-1	26-Jun	1-Sep	M	107 AF 7166-1	5-Jul	NA	L
				108 AF 7170-7	7-Jul	NA	L
76 AAF 12219-1	5-Jul	14-Sep	L	109 AF 7170-9dup1	5-Jul	NA	L
77 AAF 12227-1	10-Jul	NA	L	110 AF 7172-1	5-Jul	NA	L
78 AAF 15338-5	3-Jul	NA	L	111 AF 7172-3	12-Jul	NA	L
79 AF 7090-9	5-Jul	NA	L	112 AF 7173-7	3-Jul	NA	L
80 AF 7093-1	3-Jul	21-Aug	E	113 AF 7174-3	26-Jun	5-Sep	L
81 AF 7095-2	NA	17-Aug	E	114 AF 7175-1	5-Jul	5-Sep	L
82 AF 7095-4	5-Jul	5-Sep	L	115 AF 7175-2	30-Jun	8-Sep	L
83 AF 7095-7	NA	5-Sep	L	116 AF 7175-4	7-Jul	8-Sep	L
84 AF 7098-4	5-Jul	5-Sep	L	117 AF 7179-6	3-Jul	8-Sep	L
85 AF 7103-6	5-Jul	14-Sep	L	118 AF 7182-4	3-Jul	8-Sep	L
86 AF 7108-3	5-Jul	NA	L	119 AF 7182-6	5-Jul	NA	L
87 AF 7111-4	17-Jul	NA	L	120 AF 7183-2	3-Jul	NA	L
88 AF 7114-4	5-Jul	NA	L	121 COAF 18042-2	7-Jul	17-Aug	E
89 AF 7114-12	5-Jul	NA	L	122 COAF 18053-3	7-Jul	8-Sep	L
90 AF 7114-15	5-Jul	NA	L	123 NDAF 17119-4	30-Jun	31-Aug	M
91 AF 7128-4	3-Jul	NA	L	124 NDAF 17137-5	28-Jun	31-Aug	M
92 AF 7129-2	26-Jun	NA	L	125 NDAF 17137-7	30-Jun	8-Sep	L
93 AF 7130-6	30-Jun	NA	L	126 NDAF 17139-5	26-Jun	NA	L
94 AF 7131-2	28-Jun	NA	L	127 NDAF 17153-1	5-Jul	5-Sep	L
95 AF 7137-4	7-Jul	29-Aug	M	128 NDAF 17155-6	5-Jul	11-Sep	L
96 AF 7140-1	3-Jul	11-Sep	L	129 NDAF 1821Y-3	5-Jul	8-Sep	L
97 AF 7145-2	28-Jun	NA	L	130 NDAF 1825Y-3	5-Jul	5-Sep	L
98 AF 7147-3	3-Jul	NA	L				

¹Average date when at least 50% of the plants were flowering. (NA=never reached 50%). See page 1 for reference.

²Average date when at least 75% of plants had senescence (NA=never reached 75% before vine kill). See page 1 for reference.

³ Maturity categories: E=early, M=mid, L=late

Table 5. Yield (cwt/A) of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Total	US #1	Entry	Total	US #1
1 Atlantic	310.5	270.7	34 AF 6200-7	352.1	301.2
2 Chieftain	289.7	249.4	35 AF 6206-3	406.5	360.3
3 Dark Red Norland	339.3	312.2	36 AF 6206-5	563.4	502.7
4 Katahdin	382.5	356.3	37 AF 6526-7	384.1	359.2
5 Kennebec	371.3	260.4	38 AF 6550-2	428.9	308.0
6 Snowden	473.8	429.3	39 AF 6551-4	256.1	238.3
7 Superior	240.1	185.2	40 AF 6552-2	398.5	374.3
8 Yukon Gold	254.5	181.9	41 AF 6566-1	345.7	288.0
9 AF 5819-2	398.5	342.9	42 AF 6575-6	316.9	268.4
10 AF 5933-4	339.3	308.9	43 AF 6652-3	401.7	375.0
11 AF 6165-9	305.7	272.5	44 AF 6655-1	456.2	439.5
12 AF 6194-4	267.3	258.0	45 AF 6665-3	411.3	367.0
13 AF 6200-4	352.1	310.7	46 AF 6669-10	459.4	410.2
14 AF 6522-1	305.7	270.5	47 AF 6671-10	352.1	317.1
15 AF 6565-8	352.1	309.1	48 AF 6675-1	528.2	473.2
16 AF 6601-2	395.3	359.9	49 AF 6694-1	268.9	212.1
17 B 3296-3	321.7	289.3	50 AF 6878-22	403.3	385.5
18 BNC 559-1	265.7	223.6	51 AF 6880-9	388.9	340.5
19 BNC 816-7	238.5	212.8	52 AF 6886-3	356.9	255.9
20 BNC 833-2	230.5	188.7	53 AF 6892-6	352.1	302.0
21 BNC 839-5	121.6	92.7	54 AF 6896-1	403.3	387.2
22 BNC 917-2	267.3	212.3	55 AF 6898-1	352.1	301.4
23 CO 10098-5W/Y	104.0	45.0	56 AF 6903-3	249.7	166.1
24 CO 15211-1R	296.1	217.2	57 AF 6963-1	368.1	331.9
25 MSAFB 609-12	422.5	396.4	58 AF 6963-8	579.4	536.1
26 NCB 2607-3	244.9	210.6	59 AF 6965-5	523.4	467.9
27 NDAF 12238Y-2	376.1	314.9	60 NDAF 113484B-1	411.3	383.1
28 NDAF 141Y-3	358.5	289.9	61 WAF 16107-2	345.7	293.0
29 NY 171	336.1	270.7	62 WAF 17045-2	284.9	226.3
30 NY 177	453.0	398.8	63 WAF 17049-2	385.7	310.6
31 WAF 14096-5	568.2	419.3	64 AF 6872-11	396.1	354.2
32 AAF 11546-3	342.5	253.6	65 AF 6888-15	213.7	98.3
33 AF 5280-5	288.1	269.0	66 AF 6889-4	391.3	313.8

Table 5 (cont.). Yield (cwt/A) of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Total	US #1	Entry	Total	US #1
67 AF 6894-12	367.3	317.0	98 AF 7147-3	417.7	335.5
68 AF 6907-15	328.9	252.1	99 AF 7148-2	369.7	224.0
69 AF 6911-4	470.6	436.9	100 AF 7149-2	388.9	341.0
70 AF 6932-4	451.4	409.5	101 AF 7151-3	432.2	355.4
71 AF 6938-4	355.3	239.4	102 AF 7153-4	461.0	280.0
72 AF 6969-3	403.3	360.8	103 AF 7157-7	518.6	424.2
73 AF 6978-1	549.8	316.0	104 AF 7159-2	465.8	400.0
74 AF 6980-1	444.2	371.3	105 AF 7160-2	533.0	368.9
75 NDAF 1710Y-1	374.5	289.4	106 AF 7162-3	542.6	464.9
			107 AF 7166-1	225.7	77.3
76 AAF 12219-1	244.9	113.6	108 AF 7170-7	417.7	360.5
77 AAF 12227-1	321.7	175.4	109 AF 7170-9dup1	292.9	251.2
78 AAF 15338-5	312.1	228.3	110 AF 7172-1	321.7	252.8
79 AF 7090-9	545.5	315.3	111 AF 7172-3	504.2	388.4
80 AF 7093-1	292.9	248.7	112 AF 7173-7	432.2	300.8
81 AF 7095-2	331.3	221.9	113 AF 7174-3	249.7	213.1
82 AF 7095-4	292.9	211.2	114 AF 7175-1	533.0	476.5
83 AF 7095-7	350.5	254.9	115 AF 7175-2	427.3	361.4
84 AF 7098-4	316.9	272.2	116 AF 7175-4	456.2	391.9
85 AF 7103-6	321.7	234.6	117 AF 7179-6	542.6	403.1
86 AF 7108-3	408.1	346.5	118 AF 7182-4	441.8	380.4
87 AF 7111-4	485.0	414.7	119 AF 7182-6	499.4	442.9
88 AF 7114-4	268.9	224.7	120 AF 7183-2	585.8	338.0
89 AF 7114-12	ND	ND	121 COAF 18042-2	292.9	186.6
90 AF 7114-15	465.8	382.0	122 COAF 18053-3	417.7	351.9
91 AF 7128-4	388.9	353.7	123 NDAF 17119-4	437.0	345.6
92 AF 7129-2	480.2	406.6	124 NDAF 17137-5	456.2	424.2
93 AF 7130-6	417.7	275.5	125 NDAF 17137-7	302.5	235.2
94 AF 7131-2	441.8	232.0	126 NDAF 17139-5	364.9	278.1
95 AF 7137-4	307.3	271.2	127 NDAF 17153-1	461.0	387.2
96 AF 7140-1	374.5	326.4	128 NDAF 17155-6	350.5	295.0
97 AF 7145-2	446.6	352.6	129 NDAF 1821Y-3	249.7	182.7
Average	375.2	305.9	130 NDAF 1825Y-3	96.0	60.3

ND=No data collected.

Table 5 (cont.). Yield (%, by wt) of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	US #1	B-size	Entry	US #1	B-size
1 Atlantic	87.2	2.5	34 AF 6200-7	85.5	1.8
2 Chieftain	86.1	3.4	35 AF 6206-3	88.6	5.9
3 Dark Red Norland	92.0	3.2	36 AF 6206-5	89.2	3.7
4 Katahdin	93.1	1.6	37 AF 6526-7	93.5	2.1
5 Kennebec	70.1	2.1	38 AF 6550-2	71.8	6.6
6 Snowden	90.6	1.5	39 AF 6551-4	93.1	3.2
7 Superior	77.1	1.7	40 AF 6552-2	93.9	2.9
8 Yukon Gold	71.5	1.1	41 AF 6566-1	83.3	3.2
9 AF 5819-2	86.0	3.1	42 AF 6575-6	84.7	8.0
10 AF 5933-4	91.0	3.7	43 AF 6652-3	93.4	4.2
11 AF 6165-9	89.1	3.3	44 AF 6655-1	96.4	1.1
12 AF 6194-4	96.5	0.6	45 AF 6665-3	89.2	5.1
13 AF 6200-4	88.2	1.8	46 AF 6669-10	89.3	4.0
14 AF 6522-1	88.5	9.8	47 AF 6671-10	90.0	1.8
15 AF 6565-8	87.8	2.1	48 AF 6675-1	89.6	5.1
16 AF 6601-2	91.0	3.3	49 AF 6694-1	78.9	10.5
17 B 3296-3	89.9	3.8	50 AF 6878-22	95.6	1.1
18 BNC 559-1	84.2	5.9	51 AF 6880-9	87.5	1.1
19 BNC 816-7	89.2	7.9	52 AF 6886-3	71.7	2.8
20 BNC 833-2	81.9	5.8	53 AF 6892-6	85.8	3.0
21 BNC 839-5	76.2	5.5	54 AF 6896-1	96.0	2.6
22 BNC 917-2	79.4	4.7	55 AF 6898-1	85.6	4.0
23 CO 10098-5W/Y	43.2	17.8	56 AF 6903-3	66.5	8.5
24 CO 15211-1R	73.4	6.6	57 AF 6963-1	90.2	3.0
25 MSAFB 609-12	93.8	3.2	58 AF 6963-8	92.5	1.8
26 NCB 2607-3	86.0	5.9	59 AF 6965-5	89.4	4.1
27 NDAF 12238Y-2	83.7	7.2	60 NDAF 113484B-1	93.1	1.9
28 NDAF 141Y-3	80.9	8.0	61 WAF 16107-2	84.8	1.1
29 NY 171	80.5	4.5	62 WAF 17045-2	79.4	4.1
30 NY 177	88.0	3.8	63 WAF 17049-2	80.5	3.4
31 WAF 14096-5	73.8	7.9	64 AF 6872-11	89.4	4.6
32 AAF 11546-3	74.0	10.1	65 AF 6888-15	46.0	2.1
33 AF 5280-5	93.4	2.6	66 AF 6889-4	80.2	7.1

* % culls = 100% minus the sum of % US #1 and % B-size

Table 5 (cont.). Yield (%, by wt) of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	US #1	B-size	Entry	US #1	B-size
67 AF 6894-12	86.3	1.9	98 AF 7147-3	80.3	2.8
68 AF 6907-15	76.6	3.5	99 AF 7148-2	60.6	2.9
69 AF 6911-4	92.9	4.0	100 AF 7149-2	87.7	2.5
70 AF 6932-4	90.7	4.1	101 AF 7151-3	82.2	1.8
71 AF 6938-4	67.4	3.5	102 AF 7153-4	60.7	1.4
72 AF 6969-3	89.5	2.8	103 AF 7157-7	81.8	3.1
73 AF 6978-1	57.5	2.3	104 AF 7159-2	85.9	1.7
74 AF 6980-1	83.6	6.0	105 AF 7160-2	69.2	3.1
75 NDAF 1710Y-1	77.3	7.0	106 AF 7162-3	85.7	2.6
			107 AF 7166-1	34.2	2.0
76 AAF 12219-1	46.4	13.0	108 AF 7170-7	86.3	2.3
77 AAF 12227-1	54.5	3.0	109 AF 7170-9dup1	85.7	2.1
78 AAF 15338-5	73.2	9.5	110 AF 7172-1	78.6	4.9
79 AF 7090-9	57.8	8.8	111 AF 7172-3	77.0	7.3
80 AF 7093-1	84.9	5.0	112 AF 7173-7	69.6	1.2
81 AF 7095-2	67.0	12.4	113 AF 7174-3	85.3	3.4
82 AF 7095-4	72.1	14.1	114 AF 7175-1	89.4	3.2
83 AF 7095-7	72.7	4.0	115 AF 7175-2	84.6	2.3
84 AF 7098-4	85.9	6.9	116 AF 7175-4	85.9	1.7
85 AF 7103-6	72.9	2.5	117 AF 7179-6	74.3	2.6
86 AF 7108-3	84.9	1.1	118 AF 7182-4	86.1	3.0
87 AF 7111-4	85.5	4.7	119 AF 7182-6	88.7	1.1
88 AF 7114-4	83.6	2.7	120 AF 7183-2	57.7	3.5
89 AF 7114-12	ND	ND	121 COAF 18042-2	63.7	29.0
90 AF 7114-15	82.0	5.2	122 COAF 18053-3	84.2	6.9
91 AF 7128-4	90.9	2.0	123 NDAF 17119-4	79.1	5.6
92 AF 7129-2	84.7	2.7	124 NDAF 17137-5	93.0	1.8
93 AF 7130-6	66.0	1.1	125 NDAF 17137-7	77.8	3.5
94 AF 7131-2	52.5	4.6	126 NDAF 17139-5	76.2	3.5
95 AF 7137-4	88.2	6.1	127 NDAF 17153-1	84.0	11.8
96 AF 7140-1	87.1	5.7	128 NDAF 17155-6	84.2	10.4
97 AF 7145-2	79.0	2.3	129 NDAF 1821Y-3	73.2	4.1
Average	80.9	4.5	130 NDAF 1825Y-3	62.8	1.6

* % culls =100% minus the sum of % US #1 and % B-size

ND=No data collected.

Table 6. Tuber skin and flesh characteristics of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Skin ¹ Color	Flesh Color	Skin Texture	Entry	Skin Color	Flesh Color	Skin Texture
1 Atlantic	7	2	5	34 AF 6200-7	6	2	5
2 Chieftain	3	1	8	35 AF 6206-3	7	2	6
3 Dk Red Norland	3	1	8	36 AF 6206-5	6	1	6
4 Katahdin	7	2	8	37 AF 6526-7	7	2	6
5 Kennebec	7	2	8	38 AF 6550-2	7	1	8
6 Snowden	7	1	6	39 AF 6551-4	7	2	7
7 Superior	7	2	6	40 AF 6552-2	7	3	7
8 Yukon Gold	7	3	8	41 AF 6566-1	6	3	7
9 AF 5819-2	7	2	7	42 AF 6575-6	1	3	8
10 AF 5933-4	7	1	7	43 AF 6652-3	7	2	6
11 AF 6165-9	6	1	6	44 AF 6655-1	7	2	6
12 AF 6194-4	7	1	8	45 AF 6665-3	7	2	7
13 AF 6200-4	7	2	6	46 AF 6669-10	7	1	6
14 AF 6522-1	7	1	6	47 AF 6671-10	6	1	6
15 AF 6565-8	7	1	6	48 AF 6675-1	7	2	6
16 AF 6601-2	7	1	6	49 AF 6694-1	2	1	8
17 B 3296-3	7	1	6	50 AF 6878-22	7	2	6
18 BNC 559-1	1	1	9	51 AF 6880-9	7	2	6
19 BNC 816-7	7	2	6	52 AF 6886-3	7	2	7
20 BNC 833-2	1	9	8	53 AF 6892-6	7	2	6
21 BNC 839-5	2	1	8	54 AF 6896-1	7	2	5
22 BNC 917-2	1	1	7	55 AF 6898-1	7	2	7
23 CO 10098-5W/Y	7	5	7	56 AF 6903-3	7	3	8
24 CO 15211-1R	2	2	8	57 AF 6963-1	2	2	7
25 MSAFB 609-12	7	2	6	58 AF 6963-8	3	1	8
26 NCB 2607-3	2	3	8	59 AF 6965-5	2	1	8
27 NDAF 12238Y-2	3	2	9	60 NDAF 113484B-1	2	1	7
28 NDAF 141Y-3	2	1	8	61 WAF 16107-2	7	1	6
29 NY 171	7	1	7	62 WAF 17045-2	6	2	5
30 NY 177	7	2	6	63 WAF 17049-2	7	2	6
31 WAF 14096-5	7	3	6	64 AF 6872-11	6	2	5
32 AAF 11546-3	3	1	8	65 AF 6888-15	7	3	6
33 AF 5280-5	7	2	7	66 AF 6889-4	7	3	7

¹ See reference table for rating system on page 29.

Table 6 (cont.). Tuber skin and flesh characteristics of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Skin ¹ Color	Flesh Color	Skin Texture	Entry	Skin Color	Flesh Color	Skin Texture
67 AF 6894-12	6	2	6	99 AF 7148-2	7	2	7
68 AF 6907-15	7	1	5	100 AF 7149-2	7	2	7
69 AF 6911-4	7	2	6	101 AF 7151-3	7	3	6
70 AF 6932-4	2	2	7	102 AF 7153-4	6	2	7
71 AF 6938-4	3	2	7	103 AF 7157-7	7	2	6
72 AF 6969-3	6	3	6	104 AF 7159-2	7	2	7
73 AF 6978-1	7	2	6	105 AF 7160-2	7	3	6
74 AF 6980-1	7	1	6	106 AF 7162-3	7	2	6
75 NDAF 1710Y-1	7	3	6	107 AF 7166-1	7	3	7
				108 AF 7170-7	6	2	6
76 AAF 12219-1	6	3	6	109 AF 7170-9dup1	7	1	7
77 AAF 12227-1	7	7	7	110 AF 7172-1	7	2	8
78 AAF 15338-5	3	1	8	111 AF 7172-3	7	2	6
79 AF 7090-9	2	1	9	112 AF 7173-7	7	1	7
80 AF 7093-1	3	1	8	113 AF 7174-3	6	2	7
81 AF 7095-2	7	3	6	114 AF 7175-1	6	3	5
82 AF 7095-4	3	3	7	115 AF 7175-2	6	2	6
83 AF 7095-7	6	3	6	116 AF 7175-4	7	3	6
84 AF 7098-4	3	2	8	117 AF 7179-6	6	2	5
85 AF 7103-6	3	1	6	118 AF 7182-4	7	1	7
86 AF 7108-3	3	2	8	119 AF 7182-6	6	2	7
87 AF 7111-4	7	3	8	120 AF 7183-2	7	2	6
88 AF 7114-4	6	1	6	121 COAF 18042-2	3	3	8
89 AF 7114-12	ND	ND	ND	122 COAF 18053-3	6	3	6
90 AF 7114-15	7	1	7	123 NDAF 17119-4	2	2	7
91 AF 7128-4	6	2	6	124 NDAF 17137-5	7	1	7
92 AF 7129-2	7	1	6	125 NDAF 17137-7	4	2	3
93 AF 7130-6	7	2	6	126 NDAF 17139-5	7	2	8
94 AF 7131-2	4	2	6	127 NDAF 17153-1	2	1	8
95 AF 7137-4	7	2	7	128 NDAF 17155-6	1	1	8
96 AF 7140-1	7	1	6	129 NDAF 1821Y-3	2	2	7
97 AF 7145-2	6	2	7	130 NDAF 1825Y-3	3	1	6
98 AF 7147-3	6	1	7				

¹ See reference table for rating system on page 29.

ND=No data collected.

Table 7. Tuber skin and flesh colors of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	<u>Skin</u>		<u>Flesh</u>	
	TDRS ¹	SW ²	TDRS	SW
2 Chieftain	3	6312		
3 Dark Red Norland	3	6565		
8 Yukon Gold			3	6695
18 BNC 559-1	1	6558		
20 BNC 833-2	1	6559	9	6983
21 BNC 839-5	2	6305		
22 BNC 917-2	1	6559		
23 CO 10098-5W/Y			5	6683
24 CO 15211-1R	2	6299		
26 NCB 2607-3	2	6299	3	6695
27 NDAF 12238Y-2	3	6312		
28 NDAF 141Y-3	2	6305		
31 WAF 14096-5			3	6901
32 AAF 11546-3	3	6306		
40 AF 6552-2			3	6695
41 AF 6566-1			3	6688
42 AF 6575-6	1	6286	3	6695
49 AF 6694-1	2	6299		
56 AF 6903-3			3	6901
57 AF 6963-1	2	6305		
58 AF 6963-8	3	6312		
59 AF 6965-5	2	6305		
60 NDAF 113484B-1	2	6305		
65 AF 6888-15			3	6695
66 AF 6889-4			3	6695
70 AF 6932-4	2	6305		
71 AF 6938-4	3	6313		
72 AF 6969-3			3	6695
75 NDAF 1710Y-1			3	6695

¹ Tuber Data Rating System. See reference table on page 29.

² Sherwin Williams color number. See text on page 2.

Table 7 (cont.). Tuber skin and flesh colors of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	<u>Skin</u>		<u>Flesh</u>	
	TDRS ¹	SW ²	TDRS	SW
76 AAF 12219-1			3	6695
77 AAF 12227-1			7	6901
78 AAF 15338-5	3	6572		
79 AF 7090-9	2	6573		
80 AF 7093-1	3	6312		
81 AF 7095-2			3	6695
82 AF 7095-4	3	6312	3	6695
83 AF 7095-7			3	6695
84 AF 7098-4	3	6579		
85 AF 7103-6	3	6306		
86 AF 7108-3	3	6313		
87 AF 7111-4			3	6695
101 AF 7151-3			3	6900
105 AF 7160-2			3	6695
107 AF 7166-1			3	6695
114 AF 7175-1			3	6695
116 AF 7175-4			3	6695
121 COAF 18042-2	3	6313	3	6901
122 COAF 18053-3			3	6695
123 NDAF 17119-4	2	6580		
127 NDAF 17153-1	2	6305		
128 NDAF 17155-6	1	6559		
129 NDAF 1821Y-3	2	6305		
130 NDAF 1825Y-3	3	6313		

¹ Tuber Data Rating System. See reference table on page 29.

² Sherwin Williams color number. See text on page 2.

Table 8. External tuber characteristics of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Shape ¹	Eye Depth	Entry	Shape	Eye Depth
1 Atlantic	2	7	34 AF 6200-7	3	5
2 Chieftain	2	5	35 AF 6206-3	3	5
3 Dark Red Norland	2	5	36 AF 6206-5	3	7
4 Katahdin	2	7	37 AF 6526-7	2	6
5 Kennebec	3	7	38 AF 6550-2	2	7
6 Snowden	2	4	39 AF 6551-4	2	7
7 Superior	3	4	40 AF 6552-2	2	5
8 Yukon Gold	3	5	41 AF 6566-1	2	6
9 AF 5819-2	2	5	42 AF 6575-6	3	5
10 AF 5933-4	2	5	43 AF 6652-3	2	5
11 AF 6165-9	2	7	44 AF 6655-1	2	5
12 AF 6194-4	2	6	45 AF 6665-3	2	7
13 AF 6200-4	2	5	46 AF 6669-10	2	5
14 AF 6522-1	1	7	47 AF 6671-10	2	5
15 AF 6565-8	2	5	48 AF 6675-1	2	6
16 AF 6601-2	2	7	49 AF 6694-1	2	7
17 B 3296-3	2	7	50 AF 6878-22	2	5
18 BNC 559-1	2	7	51 AF 6880-9	2	5
19 BNC 816-7	1	7	52 AF 6886-3	3	6
20 BNC 833-2	4	7	53 AF 6892-6	2	7
21 BNC 839-5	1	5	54 AF 6896-1	2	5
22 BNC 917-2	2	5	55 AF 6898-1	2	6
23 CO 10098-5W/Y	2	7	56 AF 6903-3	2	6
24 CO 15211-1R	1	7	57 AF 6963-1	2	6
25 MSAFB 609-12	2	6	58 AF 6963-8	2	6
26 NCB 2607-3	1	7	59 AF 6965-5	2	5
27 NDAF 12238Y-2	1	6	60 NDAF 113484B-1	3	5
28 NDAF 141Y-3	1	5	61 WAF 16107-2	2	5
29 NY 171	4	7	62 WAF 17045-2	2	7
30 NY 177	2	7	63 WAF 17049-2	2	6
31 WAF 14096-5	2	7	64 AF 6872-11	2	5
32 AAF 11546-3	2	7	65 AF 6888-15	3	4
33 AF 5280-5	2	7	66 AF 6889-4	3	5

¹ See reference table for rating system on page 29.

Table 8 (cont.). External tuber characteristics of entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Shape ¹	Eye Depth	Entry	Shape	Eye Depth
67 AF 6894-12	2	5	99 AF 7148-2	2	7
68 AF 6907-15	2	7	100 AF 7149-2	2	5
69 AF 6911-4	2	5	101 AF 7151-3	2	4
70 AF 6932-4	2	5	102 AF 7153-4	2	6
71 AF 6938-4	2	3	103 AF 7157-7	2	7
72 AF 6969-3	2	5	104 AF 7159-2	2	6
73 AF 6978-1	2	5	105 AF 7160-2	3	5
74 AF 6980-1	2	7	106 AF 7162-3	2	3
75 NDAF 1710Y-1	3	7	107 AF 7166-1	3	5
			108 AF 7170-7	2	5
76 AAF 12219-1	2	7	109 AF 7170-9dup1	2	7
77 AAF 12227-1	2	5	110 AF 7172-1	2	7
78 AAF 15338-5	3	5	111 AF 7172-3	2	7
79 AF 7090-9	2	7	112 AF 7173-7	2	5
80 AF 7093-1	2	5	113 AF 7174-3	3	5
81 AF 7095-2	3	6	114 AF 7175-1	2	5
82 AF 7095-4	4	7	115 AF 7175-2	2	5
83 AF 7095-7	4	5	116 AF 7175-4	2	7
84 AF 7098-4	3	7	117 AF 7179-6	3	5
85 AF 7103-6	2	5	118 AF 7182-4	3	5
86 AF 7108-3	3	5	119 AF 7182-6	2	6
87 AF 7111-4	4	3	120 AF 7183-2	2	7
88 AF 7114-4	3	7	121 COAF 18042-2	4	7
89 AF 7114-12	ND	ND	122 COAF 18053-3	2	5
90 AF 7114-15	2	5	123 NDAF 17119-4	2	5
91 AF 7128-4	3	5	124 NDAF 17137-5	2	7
92 AF 7129-2	2	7	125 NDAF 17137-7	2	8
93 AF 7130-6	2	5	126 NDAF 17139-5	2	7
94 AF 7131-2	3	5	127 NDAF 17153-1	2	5
95 AF 7137-4	2	5	128 NDAF 17155-6	2	7
96 AF 7140-1	2	6	129 NDAF 1821Y-3	3	5
97 AF 7145-2	2	5	130 NDAF 1825Y-3	2	5
98 AF 7147-3	2	7			

¹ See reference table for rating system on page 29.

ND=No data collected.

Table 9. Internal tuber defects for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	% tubers ¹ with hollow heart	% tubers with brown center	Entry	% tubers with hollow heart	% tubers with brown center
1 Atlantic	0	0	34 AF 6200-7	0	0
2 Chieftain	0	0	35 AF 6206-3	0	30
3 Dark Red Norland	0	0	36 AF 6206-5	0	0
4 Katahdin	0	0	37 AF 6526-7	0	10
5 Kennebec	0	10	38 AF 6550-2	0	0
6 Snowden	0	10	39 AF 6551-4	0	0
7 Superior	0	0	40 AF 6552-2	0	0
8 Yukon Gold	0	50	41 AF 6566-1	0	0
9 AF 5819-2	0	0	42 AF 6575-6	0	0
10 AF 5933-4	0	0	43 AF 6652-3	0	20
11 AF 6165-9	0	10	44 AF 6655-1	0	0
12 AF 6194-4	0	0	45 AF 6665-3	0	10
13 AF 6200-4	0	0	46 AF 6669-10	0	30
14 AF 6522-1	0	0	47 AF 6671-10	0	0
15 AF 6565-8	0	0	48 AF 6675-1	0	0
16 AF 6601-2	0	0	49 AF 6694-1	0	10
17 B 3296-3	0	10	50 AF 6878-22	0	0
18 BNC 559-1	0	0	51 AF 6880-9	0	0
19 BNC 816-7	0	0	52 AF 6886-3	0	0
20 BNC 833-2	0	0	53 AF 6892-6	0	0
21 BNC 839-5	0	10	54 AF 6896-1	0	10
22 BNC 917-2	0	0	55 AF 6898-1	0	10
23 CO 10098-5W/Y	0	0	56 AF 6903-3	0	0
24 CO 15211-1R	0	10	57 AF 6963-1	0	0
25 MSAFB 609-12	0	0	58 AF 6963-8	0	0
26 NCB 2607-3	0	10	59 AF 6965-5	0	0
27 NDAF 12238Y-2	0	0	60 NDAF 113484B-1	0	10
28 NDAF 141Y-3	0	0	61 WAF 16107-2	0	0
29 NY 171	0	0	62 WAF 17045-2	0	0
30 NY 177	0	10	63 WAF 17049-2	0	0
31 WAF 14096-5	0	0	64 AF 6872-11	0	0
32 AAF 11546-3	0	0	65 AF 6888-15	0	10
33 AF 5280-5	0	0	66 AF 6889-4	0	11

¹ % of tubers out of 10 tubers that contain the defect.

Table 9 (cont.). Internal tuber defects for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	% tubers ¹ with hollow heart	% tubers with brown center	Entry	% tubers with hollow heart	% tubers with brown center
67 AF 6894-12	0	10	99 AF 7148-2	0	0
68 AF 6907-15	0	0	100 AF 7149-2	0	10
69 AF 6911-4	0	0	101 AF 7151-3	0	0
70 AF 6932-4	0	0	102 AF 7153-4	0	0
71 AF 6938-4	0	0	103 AF 7157-7	0	10
72 AF 6969-3	0	0	104 AF 7159-2	10	20
73 AF 6978-1	0	10	105 AF 7160-2	10	10
74 AF 6980-1	0	0	106 AF 7162-3	0	0
75 NDAF 1710Y-1	0	0	107 AF 7166-1	0	0
			108 AF 7170-7	0	0
76 AAF 12219-1	0	0	109 AF 7170-9dup1	0	0
77 AAF 12227-1	20	10	110 AF 7172-1	0	10
78 AAF 15338-5	0	10	111 AF 7172-3	0	20
79 AF 7090-9	0	20	112 AF 7173-7	0	0
80 AF 7093-1	0	0	113 AF 7174-3	10	0
81 AF 7095-2	0	0	114 AF 7175-1	0	0
82 AF 7095-4	0	0	115 AF 7175-2	0	0
83 AF 7095-7	0	0	116 AF 7175-4	0	10
84 AF 7098-4	0	0	117 AF 7179-6	0	10
85 AF 7103-6	0	20	118 AF 7182-4	0	10
86 AF 7108-3	0	0	119 AF 7182-6	0	0
87 AF 7111-4	0	0	120 AF 7183-2	0	0
88 AF 7114-4	0	10	121 COAF 18042-2	0	10
89 AF 7114-12	ND	ND	122 COAF 18053-3	0	0
90 AF 7114-15	0	0	123 NDAF 17119-4	0	10
91 AF 7128-4	0	0	124 NDAF 17137-5	0	0
92 AF 7129-2	0	10	125 NDAF 17137-7	0	0
93 AF 7130-6	0	0	126 NDAF 17139-5	0	0
94 AF 7131-2	0	0	127 NDAF 17153-1	0	0
95 AF 7137-4	0	0	128 NDAF 17155-6	0	0
96 AF 7140-1	0	0	129 NDAF 1821Y-3	0	20
97 AF 7145-2	0	0	130 NDAF 1825Y-3	0	20
98 AF 7147-3	0	0			

¹ % of tubers out of 10 tubers that contain the defect.

ND=No data collected.

Table 9 (cont.). Internal tuber defects for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	% tubers ¹ with necrosis	% tubers with vasc. discoloration	Entry	% tubers with necrosis	% tubers with vasc. discoloration
1 Atlantic	0	0	34 AF 6200-7	0	10
2 Chieftain	0	0	35 AF 6206-3	0	0
3 Dk Red Norland	0	10	36 AF 6206-5	0	0
4 Katahdin	0	0	37 AF 6526-7	0	0
5 Kennebec	0	30	38 AF 6550-2	0	0
6 Snowden	0	10	39 AF 6551-4	0	10
7 Superior	0	0	40 AF 6552-2	10	0
8 Yukon Gold	0	0	41 AF 6566-1	70	0
9 AF 5819-2	0	20	42 AF 6575-6	0	20
10 AF 5933-4	0	0	43 AF 6652-3	0	0
11 AF 6165-9	0	0	44 AF 6655-1	0	10
12 AF 6194-4	0	0	45 AF 6665-3	10	0
13 AF 6200-4	0	10	46 AF 6669-10	0	50
14 AF 6522-1	0	0	47 AF 6671-10	0	0
15 AF 6565-8	0	0	48 AF 6675-1	0	0
16 AF 6601-2	0	0	49 AF 6694-1	0	0
17 B 3296-3	10	0	50 AF 6878-22	10	10
18 BNC 559-1	0	0	51 AF 6880-9	0	0
19 BNC 816-7	0	10	52 AF 6886-3	0	11
20 BNC 833-2	0	0	53 AF 6892-6	0	0
21 BNC 839-5	0	10	54 AF 6896-1	0	0
22 BNC 917-2	0	0	55 AF 6898-1	0	0
23 CO 10098-5W/Y	0	0	56 AF 6903-3	0	0
24 CO 15211-1R	0	0	57 AF 6963-1	0	0
25 MSAFB 609-12	0	0	58 AF 6963-8	0	0
26 NCB 2607-3	0	0	59 AF 6965-5	0	0
27 NDAF 12238Y-2	0	0	60 NDAF 113484B-1	0	0
28 NDAF 141Y-3	0	10	61 WAF 16107-2	10	0
29 NY 171	0	0	62 WAF 17045-2	0	0
30 NY 177	0	0	63 WAF 17049-2	0	0
31 WAF 14096-5	0	20	64 AF 6872-11	0	0
32 AAF 11546-3	0	0	65 AF 6888-15	0	10
33 AF 5280-5	0	0	66 AF 6889-4	0	11

¹ % of tubers out of 10 tubers that contain the defect.

Table 9 (cont.). Internal tuber defects for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	% tubers ¹ with necrosis	% tubers with vasc. discoloration	Entry	% tubers with necrosis	% tubers with vasc. discoloration
67 AF 6894-12	0	10	99 AF 7148-2	0	0
68 AF 6907-15	0	10	100 AF 7149-2	0	0
69 AF 6911-4	0	0	101 AF 7151-3	0	10
70 AF 6932-4	0	0	102 AF 7153-4	0	0
71 AF 6938-4	0	10	103 AF 7157-7	0	0
72 AF 6969-3	0	10	104 AF 7159-2	0	0
73 AF 6978-1	0	0	105 AF 7160-2	10	40
74 AF 6980-1	0	0	106 AF 7162-3	0	0
75 NDAF 1710Y-1	0	0	107 AF 7166-1	0	10
			108 AF 7170-7	0	0
76 AAF 12219-1	0	0	109 AF 7170-9dup1	0	0
77 AAF 12227-1	0	0	110 AF 7172-1	0	0
78 AAF 15338-5	0	10	111 AF 7172-3	0	10
79 AF 7090-9	0	0	112 AF 7173-7	0	20
80 AF 7093-1	0	0	113 AF 7174-3	0	0
81 AF 7095-2	0	0	114 AF 7175-1	0	20
82 AF 7095-4	0	20	115 AF 7175-2	0	0
83 AF 7095-7	0	50	116 AF 7175-4	0	30
84 AF 7098-4	0	0	117 AF 7179-6	0	0
85 AF 7103-6	10	0	118 AF 7182-4	0	10
86 AF 7108-3	0	0	119 AF 7182-6	0	0
87 AF 7111-4	0	20	120 AF 7183-2	0	0
88 AF 7114-4	0	0	121 COAF 18042-2	0	0
89 AF 7114-12	ND	ND	122 COAF 18053-3	0	20
90 AF 7114-15	0	0	123 NDAF 17119-4	10	10
91 AF 7128-4	0	0	124 NDAF 17137-5	0	0
92 AF 7129-2	0	10	125 NDAF 17137-7	0	0
93 AF 7130-6	20	0	126 NDAF 17139-5	0	20
94 AF 7131-2	0	0	127 NDAF 17153-1	0	0
95 AF 7137-4	0	0	128 NDAF 17155-6	0	0
96 AF 7140-1	0	10	129 NDAF 1821Y-3	0	10
97 AF 7145-2	0	0	130 NDAF 1825Y-3	0	0
98 AF 7147-3	0	10			

¹ % of tubers out of 10 tubers that contain the defect.

ND=No data collected.

Table 10. Overall quality for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Overall ¹ Appearance	% tubers ² with defects	Entry	Overall Appearance	% tubers with defects
1 Atlantic	7	0	34 AF 6200-7	5	10
2 Chieftain	7	0	35 AF 6206-3	7	30
3 Dark Red Norland	7	10	36 AF 6206-5	7	0
4 Katahdin	7	0	37 AF 6526-7	7	10
5 Kennebec	5	40	38 AF 6550-2	7	0
6 Snowden	6	20	39 AF 6551-4	7	10
7 Superior	6	0	40 AF 6552-2	7	10
8 Yukon Gold	7	50	41 AF 6566-1	7	70
9 AF 5819-2	6	20	42 AF 6575-6	7	20
10 AF 5933-4	7	0	43 AF 6652-3	7	20
11 AF 6165-9	5	10	44 AF 6655-1	7	10
12 AF 6194-4	7	0	45 AF 6665-3	6	20
13 AF 6200-4	7	10	46 AF 6669-10	7	70
14 AF 6522-1	7	0	47 AF 6671-10	7	0
15 AF 6565-8	7	0	48 AF 6675-1	7	0
16 AF 6601-2	7	0	49 AF 6694-1	7	10
17 B 3296-3	7	20	50 AF 6878-22	7	20
18 BNC 559-1	7	0	51 AF 6880-9	7	0
19 BNC 816-7	7	10	52 AF 6886-3	7	11
20 BNC 833-2	6	0	53 AF 6892-6	5	0
21 BNC 839-5	6	20	54 AF 6896-1	7	10
22 BNC 917-2	6	0	55 AF 6898-1	7	10
23 CO 10098-5W/Y	7	0	56 AF 6903-3	6	0
24 CO 15211-1R	5	10	57 AF 6963-1	7	0
25 MSAFB 609-12	6	0	58 AF 6963-8	7	0
26 NCB 2607-3	7	10	59 AF 6965-5	7	0
27 NDAF 12238Y-2	7	0	60 NDAF 113484B-1	7	10
28 NDAF 141Y-3	7	10	61 WAF 16107-2	6	10
29 NY 171	6	0	62 WAF 17045-2	7	0
30 NY 177	7	10	63 WAF 17049-2	7	0
31 WAF 14096-5	7	20	64 AF 6872-11	7	0
32 AAF 11546-3	7	0	65 AF 6888-15	7	20
33 AF 5280-5	9	0	66 AF 6889-4	5	22

¹ See reference table for rating system on page 29.

² % of tubers out of 10 tubers that contain defects.

Table 10 (cont.). Overall quality for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Overall ¹ Appearance	% tubers ² with defects	Entry	Overall Appearance	% tubers with defects
67 AF 6894-12	5	20	99 AF 7148-2	7	0
68 AF 6907-15	6	10	100 AF 7149-2	7	10
69 AF 6911-4	7	0	101 AF 7151-3	7	10
70 AF 6932-4	7	0	102 AF 7153-4	5	0
71 AF 6938-4	5	10	103 AF 7157-7	5	10
72 AF 6969-3	7	10	104 AF 7159-2	6	20
73 AF 6978-1	5	10	105 AF 7160-2	7	50
74 AF 6980-1	5	0	106 AF 7162-3	5	0
75 NDAF 1710Y-1	7	0	107 AF 7166-1	5	10
			108 AF 7170-7	5	0
76 AAF 12219-1	7	0	109 AF 7170-9dup1	9	0
77 AAF 12227-1	5	20	110 AF 7172-1	7	10
78 AAF 15338-5	7	20	111 AF 7172-3	7	30
79 AF 7090-9	7	20	112 AF 7173-7	6	20
80 AF 7093-1	7	10	113 AF 7174-3	7	10
81 AF 7095-2	5	0	114 AF 7175-1	7	20
82 AF 7095-4	6	20	115 AF 7175-2	7	0
83 AF 7095-7	7	50	116 AF 7175-4	7	40
84 AF 7098-4	7	0	117 AF 7179-6	7	10
85 AF 7103-6	7	30	118 AF 7182-4	5	20
86 AF 7108-3	6	0	119 AF 7182-6	5	0
87 AF 7111-4	7	20	120 AF 7183-2	5	0
88 AF 7114-4	7	10	121 COAF 18042-2	7	10
89 AF 7114-12	ND	ND	122 COAF 18053-3	7	20
90 AF 7114-15	5	0	123 NDAF 17119-4	5	30
91 AF 7128-4	7	0	124 NDAF 17137-5	5	0
92 AF 7129-2	5	20	125 NDAF 17137-7	7	0
93 AF 7130-6	6	20	126 NDAF 17139-5	6	20
94 AF 7131-2	7	0	127 NDAF 17153-1	9	0
95 AF 7137-4	7	0	128 NDAF 17155-6	9	0
96 AF 7140-1	7	10	129 NDAF 1821Y-3	7	30
97 AF 7145-2	6	0	130 NDAF 1825Y-3	5	20
98 AF 7147-3	7	10			

¹ See reference table for rating system on page 29.

² % of tubers out of 10 tubers that contain defects.

ND=No data collected.

Table 11. Specific gravity and chip quality for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Specific Gravity ¹	Chip Color ²	% Blister ³	Entry	Specific Gravity	Chip Color	% Blister
1 Atlantic	1.071	5	35	34 AF 6200-7	1.082	3	5
2 Chieftain	1.059	6	45	35 AF 6206-3	1.076	4	10
3 Dark Red Norland	1.058	6	5	36 AF 6206-5	1.083	3	10
4 Katahdin	1.062	6	35	37 AF 6526-7	1.075	5	25
5 Kennebec	1.059	6	0	38 AF 6550-2	1.073	4	15
6 Snowden	1.072	5	10	39 AF 6551-4	1.059	4	25
7 Superior	1.076	5	35	40 AF 6552-2	1.071	4	20
8 Yukon Gold	1.067	6	15	41 AF 6566-1	1.079	3	40
9 AF 5819-2	1.068	4	15	42 AF 6575-6	1.066	6	25
10 AF 5933-4	1.079	4.5	25	43 AF 6652-3	1.073	5	5
11 AF 6165-9	1.079	4	20	44 AF 6655-1	1.074	4	10
12 AF 6194-4	1.067	5	10	45 AF 6665-3	1.070	5	0
13 AF 6200-4	1.072	3	40	46 AF 6669-10	1.078	2	10
14 AF 6522-1	1.069	4	5	47 AF 6671-10	1.080	4	10
15 AF 6565-8	1.073	3	15	48 AF 6675-1	1.065	5	45
16 AF 6601-2	1.067	4	40	49 AF 6694-1	1.058	6	5
17 B 3296-3	1.076	4	35	50 AF 6878-22	1.079	4	10
18 BNC 559-1	1.059	6	20	51 AF 6880-9	1.068	5	35
19 BNC 816-7	1.070	5	35	52 AF 6886-3	1.063	4	20
20 BNC 833-2	1.064	4	35	53 AF 6892-6	1.078	1	10
21 BNC 839-5	1.059	5	40	54 AF 6896-1	1.075	5	30
22 BNC 917-2	1.059	5	5	55 AF 6898-1	1.071	5	0
23 CO 10098-5W/Y	1.080	4	45	56 AF 6903-3	1.068	4	0
24 CO 15211-1R	1.059	6	0	57 AF 6963-1	1.062	6	15
25 MSAFB 609-12	1.081	4	75	58 AF 6963-8	1.061	5	0
26 NCB 2607-3	1.073	5	10	59 AF 6965-5	1.066	4	0
27 NDAF 12238Y-2	1.065	6	5	60 NDAF 113484B-1	1.058	6	35
28 NDAF 141Y-3	1.063	6	55	61 WAF 16107-2	1.074	3	15
29 NY 171	1.059	5	45	62 WAF 17045-2	1.072	4	25
30 NY 177	1.086	2	15	63 WAF 17049-2	1.094	1	35
31 WAF 14096-5	1.070	5	15	64 AF 6872-11	1.081	4	20
32 AAF 11546-3	1.058	6	5	65 AF 6888-15	1.069	ND	ND
33 AF 5280-5	1.060	1	10	66 AF 6889-4	1.076	ND	ND

¹ Corrected values. See calculations on page 2 and reference table on page 31 for starch and dry matter conversions.

² SFA Standard (1=light, 6 =dark).

³ Percentage of chips that developed blisters greater than 1 cm in diameter during the frying process.

ND=No data collected.

Table 11 (cont.). Specific gravity and chip quality for entries grown in potato germplasm evaluations at the OSU-OARDC in Wooster, OH in 2023.

Entry	Specific ¹ Gravity	Chip ² Color	% ³ Blister	Entry	Specific Gravity	Chip Color	% Blister
67 AF 6894-12	1.077	5	20	99 AF 7148-2	1.066	6	35
68 AF 6907-15	1.065	5	5	100 AF 7149-2	1.067	ND	ND
69 AF 6911-4	1.079	4	60	101 AF 7151-3	1.077	ND	ND
70 AF 6932-4	1.058	ND	ND	102 AF 7153-4	1.069	4	20
71 AF 6938-4	1.059	ND	ND	103 AF 7157-7	1.078	5	65
72 AF 6969-3	1.065	6	15	104 AF 7159-2	1.084	5	65
73 AF 6978-1	1.071	5	5	105 AF 7160-2	1.070	ND	ND
74 AF 6980-1	1.069	5	15	106 AF 7162-3	1.072	6	10
75 NDAF 1710Y-1	1.072	ND	ND	107 AF 7166-1	1.059	ND	ND
				108 AF 7170-7	1.077	4	20
76 AAF 12219-1	1.058	ND	ND	109 AF 7170-9dup1	1.074	5	25
77 AAF 12227-1	1.059	6	10	110 AF 7172-1	1.066	5	15
78 AAF 15338-5	1.059	ND	ND	111 AF 7172-3	1.069	5	40
79 AF 7090-9	1.064	ND	ND	112 AF 7173-7	1.073	1	40
80 AF 7093-1	1.065	ND	ND	113 AF 7174-3	1.067	5	30
81 AF 7095-2	1.062	ND	ND	114 AF 7175-1	1.077	ND	ND
82 AF 7095-4	1.062	ND	ND	115 AF 7175-2	1.079	ND	ND
83 AF 7095-7	1.071	ND	ND	116 AF 7175-4	1.071	ND	ND
84 AF 7098-4	1.059	ND	ND	117 AF 7179-6	1.066	2	35
85 AF 7103-6	1.059	ND	ND	118 AF 7182-4	1.064	4	45
86 AF 7108-3	1.065	ND	ND	119 AF 7182-6	1.075	1	15
87 AF 7111-4	1.071	ND	ND	120 AF 7183-2	1.069	4	10
88 AF 7114-4	1.063	5	30	121 COAF 18042-2	1.060	ND	ND
89 AF 7114-12	ND	ND	ND	122 COAF 18053-3	1.059	ND	ND
90 AF 7114-15	1.073	6	35	123 NDAF 17119-4	1.061	ND	ND
91 AF 7128-4	1.066	5	35	124 NDAF 17137-5	1.070	4	10
92 AF 7129-2	1.081	3	10	125 NDAF 17137-7	1.069	4	5
93 AF 7130-6	1.084	5	15	126 NDAF 17139-5	1.064	5	20
94 AF 7131-2	1.064	5.5	0	127 NDAF 17153-1	1.069	ND	ND
95 AF 7137-4	1.062	6	20	128 NDAF 17155-6	1.061	ND	ND
96 AF 7140-1	1.078	4	10	129 NDAF 1821Y-3	1.059	ND	ND
97 AF 7145-2	1.068	5	15	130 NDAF 1825Y-3	1.059	ND	ND
98 AF 7147-3	1.074	3	40				

¹ Corrected values. See calculations on page 2 and reference table on page 31 for starch and dry matter conversions.

² SFA Standard (1=light, 6 =dark).

³ Percentage of chips that developed blisters greater than 1 cm in diameter during the frying process.

ND=No data collected.

TUBER DATA RATING SYSTEM

Skin Color

1. Purple
2. Red
3. Pink
4. Dark Brown
5. Brown
6. Tan
7. Buff
8. White
9. Cream

Skin Texture

1. Part. russet
2. Heavy russet
3. Mod. russet
4. Light russet
5. Netted
6. Slight netting
7. Mod. smooth
8. Smooth
9. Very smooth

Shape

1. Round
2. Mostly round
3. Round to oblong
4. Mostly oblong
5. Oblong
6. Oblong to long
7. Mostly long
8. Long
9. Cylindrical

Eye Depth

1. Very deep
2. --
3. Deep
4. --
5. Intermediate
6. --
7. Shallow
8. --
9. Very Shallow

Appearance

1. Very poor
2. -
3. Poor
4. -
5. Fair
6. -
7. Good
8. -
9. Excellent

Flesh Color

1. White
2. Cream
3. Light Yellow
4. Med. Yellow
5. Dark Yellow/Orange
6. Pink
7. Red
8. Blue
9. Purple

TEMPERATURE CORRECTION

The pulp temperature of the potatoes and the temperature of the water shall be recorded immediately before testing and the specific gravity reading corrected as indicated in the following table:

Correction Factors for Specific Gravity of Potatoes*
(Corrected to Zero Base of 50° Tuber Temperatures and 50° Water Temperature)

Water Temperature Degrees Fahrenheit

Tuber Temperature	38°	40°	45°	50°	55°	60°	65°	70°	75°	80°
38°	-.0021	-.0020	-.0018	-.0018	-.0020	-.0023	-.0029	-.0038	-.0047	-.0056
40°	-.0017	-.0018	-.0014	-.0014	-.0016	-.0019	-.0025	-.0034	-.0043	-.0052
45°	-.0009	-.0008	-.0006	-.0006	-.0008	-.0011	-.0017	-.0026	-.0035	-.0044
50°	-.0003	-.0002	0	0	-.0002	-.0005	-.0011	-.0020	-.0029	-.0038
55°	+.0001	+.0002	+.0004	+.0004	+.0002	-.0001	-.0007	-.0016	-.0025	-.0034
60°	+.0004	+.0005	+.0007	+.0007	+.0005	+.0002	-.0004	-.0013	-.0022	-.0031
65°	+.0005	+.0006	+.0008	+.0008	+.0008	+.0003	-.0003	-.0012	-.0021	-.0030
70°	+.0006	+.0007	+.0009	+.0009	+.0007	+.0004	-.0002	-.0011	-.0020	-.0029
75°	+.0007	+.0008	+.0010	+.0010	+.0008	+.0005	-.0001	-.0010	-.0019	-.0028
80°	+.0008	+.0009	+.0011	+.0011	+.0009	+.0006	0	-.0009	-.0018	-.0027
85°	+.0009	+.0010	+.0012	+.0012	+.0010	+.0007	+.0001	-.0008	-.0017	-.0026
90°	+.0010	+.0011	+.0013	+.0013	+.0011	+.0008	+.0002	-.0007	-.0016	-.0025
95°	+.0011	+.0012	+.0014	+.0014	+.0012	+.0009	+.0003	-.0006	-.0015	-.0024
100°	+.0012	+.0013	+.0015	+.0015	+.0013	+.0010	+.0004	-.0005	-.0014	-.0023

* To apply correction factor, change actual specific gravity reading by adding or subtracting the appropriate factor according to the plus or minus sign.

This table is copied and referenced from the Snack Food Association's (nka SNAC International) Potato Hydrometer Information and Instructions Booklet

Conversion Table for Specific Gravity of Potato Tubers to Content of Starch and Dry Matter % (Calculated from Von Scheele equations: % starch = $17.565 + 199.07$ (Sp. Gr.-1.0988); % dry matter = $24.181 + 211.04$ (Sp. Gr.-1.0988)

Specific Gravity	Starch %	Dry Matter %	Specific Gravity	Starch %	Dry Matter %
1.050	7.85	13.88	1.081	14.02	20.43
1.051	8.05	14.09	1.082	14.22	20.64
1.052	8.25	14.31	1.083	14.42	20.85
1.053	8.45	14.32	1.084	14.62	21.06
1.054	8.65	14.73	1.085	14.82	21.27
1.055	8.85	14.94	1.086	15.02	21.48
1.056	9.04	15.15	1.087	15.22	21.69
1.057	9.24	15.38	1.088	15.41	21.90
1.058	9.44	15.57	1.089	15.61	22.11
1.059	9.64	15.78	1.090	15.81	22.33
1.060	9.84	15.99	1.091	16.01	22.54
1.061	10.04	16.21	1.092	16.20	22.75
1.062	10.24	16.42	1.093	16.41	22.96
1.063	10.44	16.63	1.094	16.61	23.17
1.064	10.64	16.84	1.095	16.81	23.38
1.065	10.84	17.05	1.096	17.01	23.59
1.066	11.04	17.26	1.097	17.21	23.89
1.067	11.23	17.47	1.098	17.41	24.01
1.068	11.43	17.68	1.099	17.60	24.22
1.069	11.63	17.89	1.100	17.80	24.44
1.070	11.83	18.10	1.101	18.00	24.65
1.071	12.03	18.32	1.102	18.20	24.86
1.072	12.23	18.53	1.103	18.40	25.07
1.073	12.43	18.74	1.104	18.60	25.28
1.074	12.63	18.95	1.105	18.80	25.49
1.075	12.83	19.16	1.106	19.00	25.70
1.076	13.03	19.37	1.107	19.20	25.91
1.077	13.22	19.58	1.180	19.40	26.12
1.078	13.42	19.79	1.109	29.60	26.34
1.079	13.62	20.00	1.110	19.79	26.55
1.080	13.82	20.21	1.111	19.99	26.76

Factors Affecting the Specific Gravity of the White Potato in Maine. Maine Agricultural Experiment Station. Bulletin 583. May 1959.

Potato Chip Images for NE-2231



1

Atlantic

2

Chieftain



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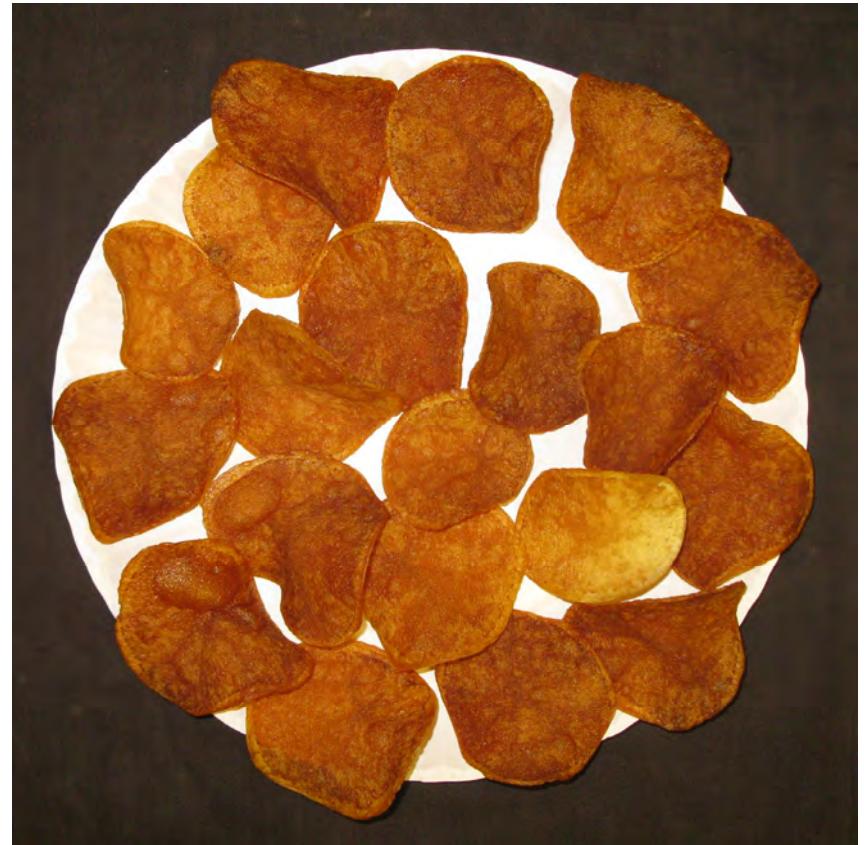


3

Dark Red
Norland

4

Katahdin



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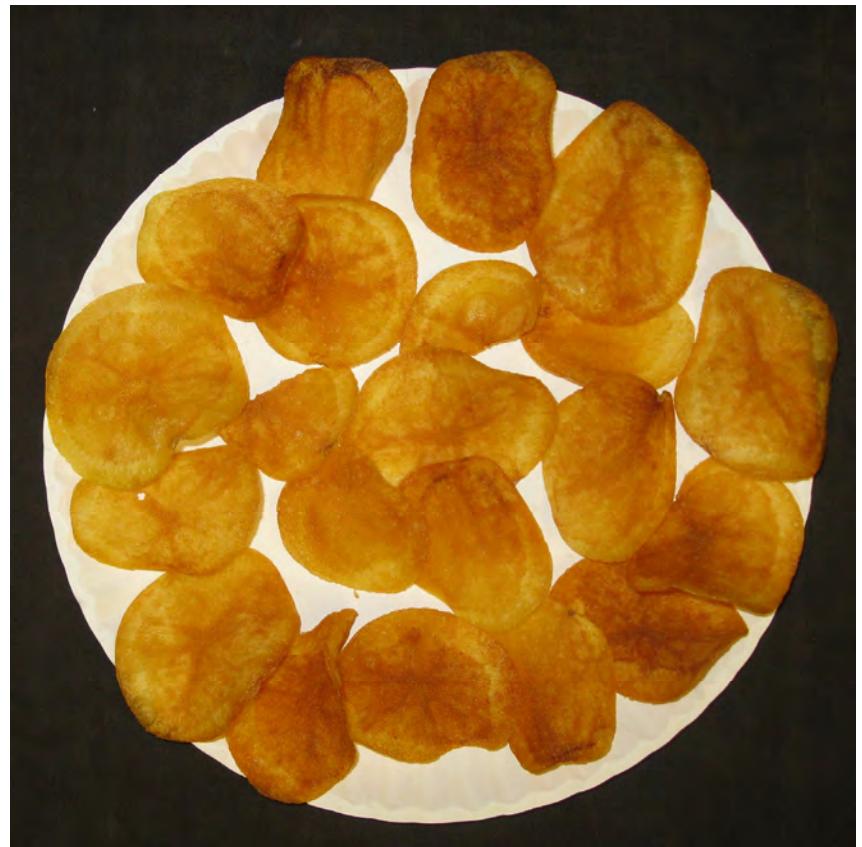


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Kennebec

6

Snowden

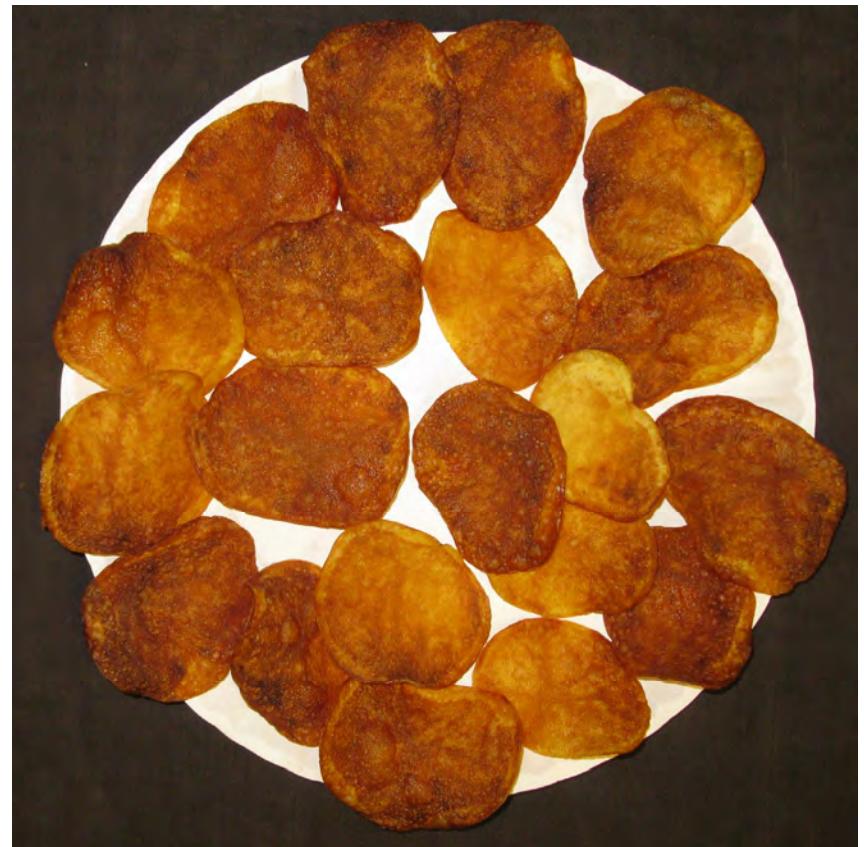


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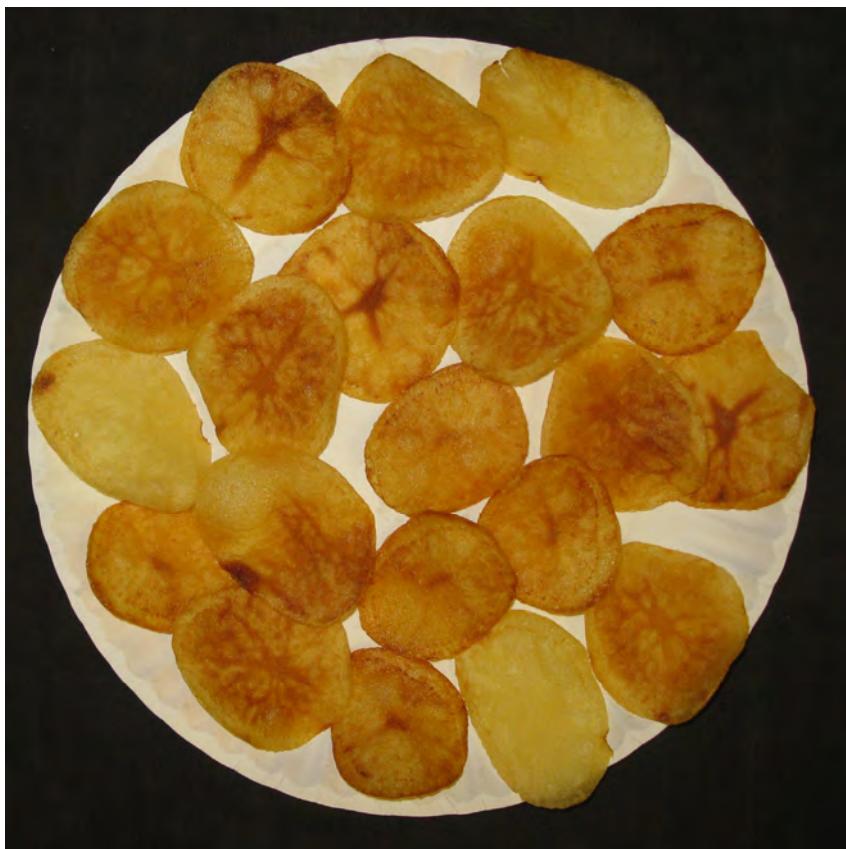
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8
Yukon Gold



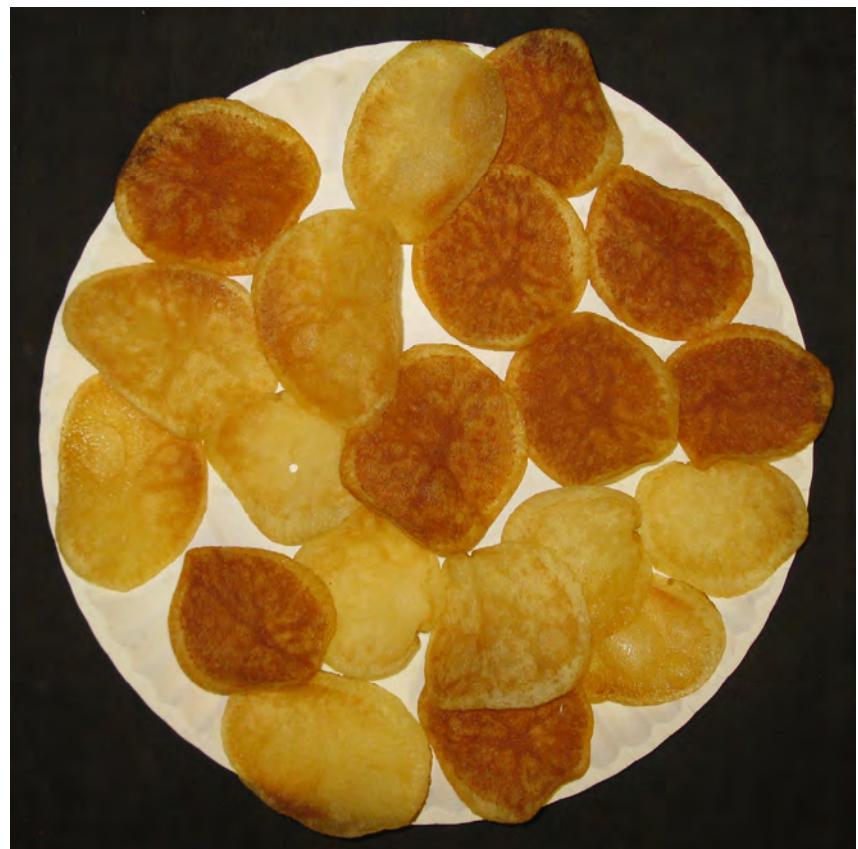
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Superior

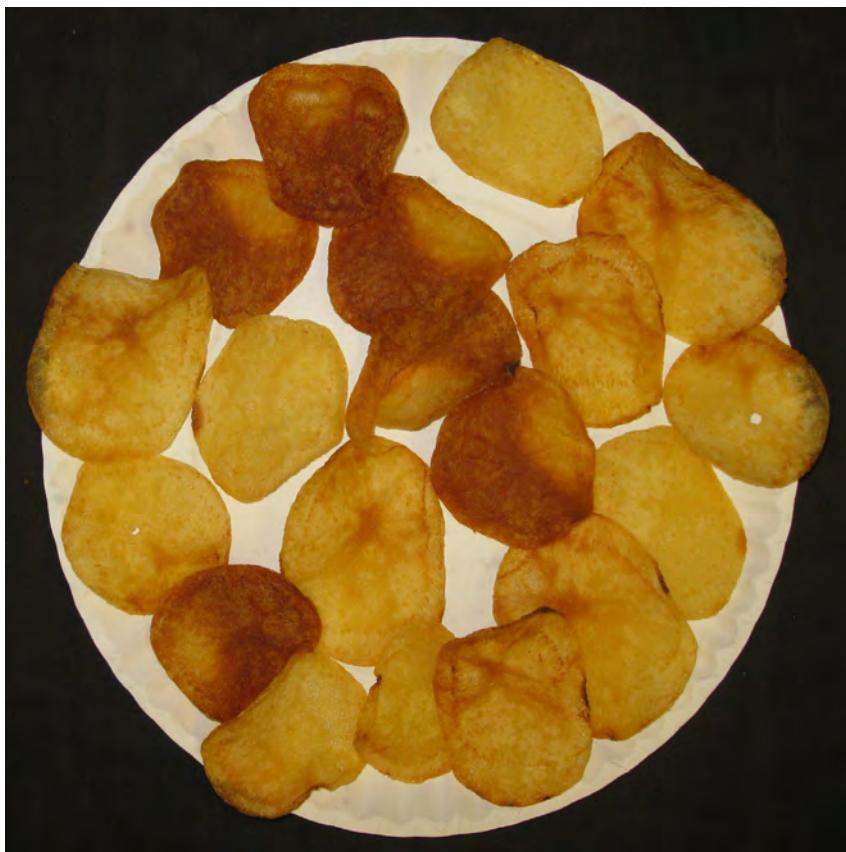


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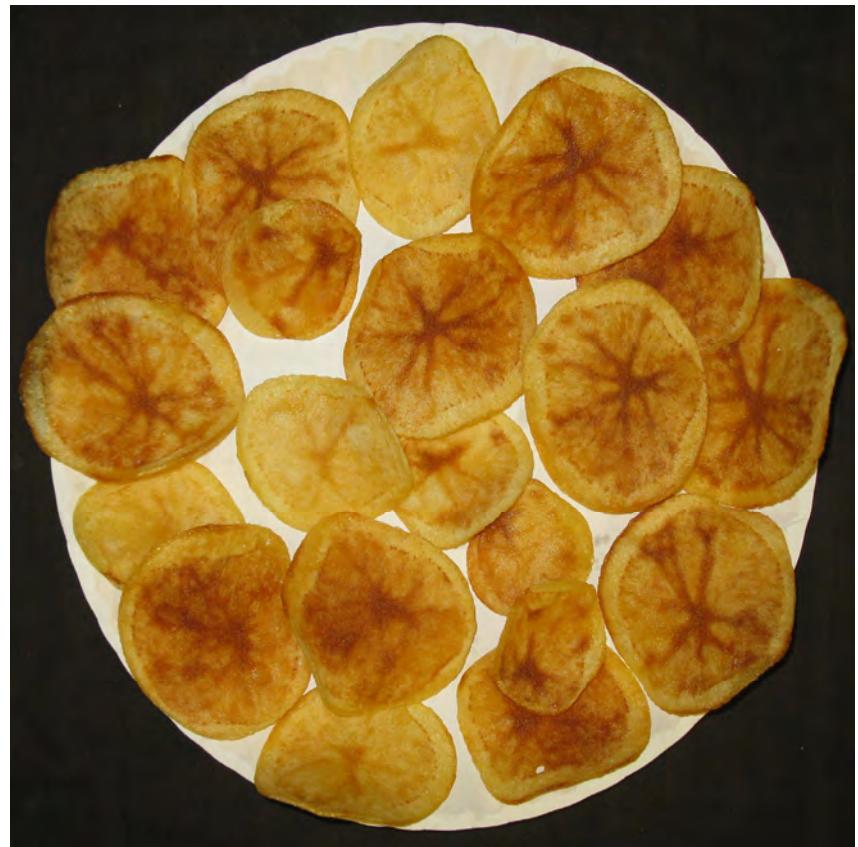
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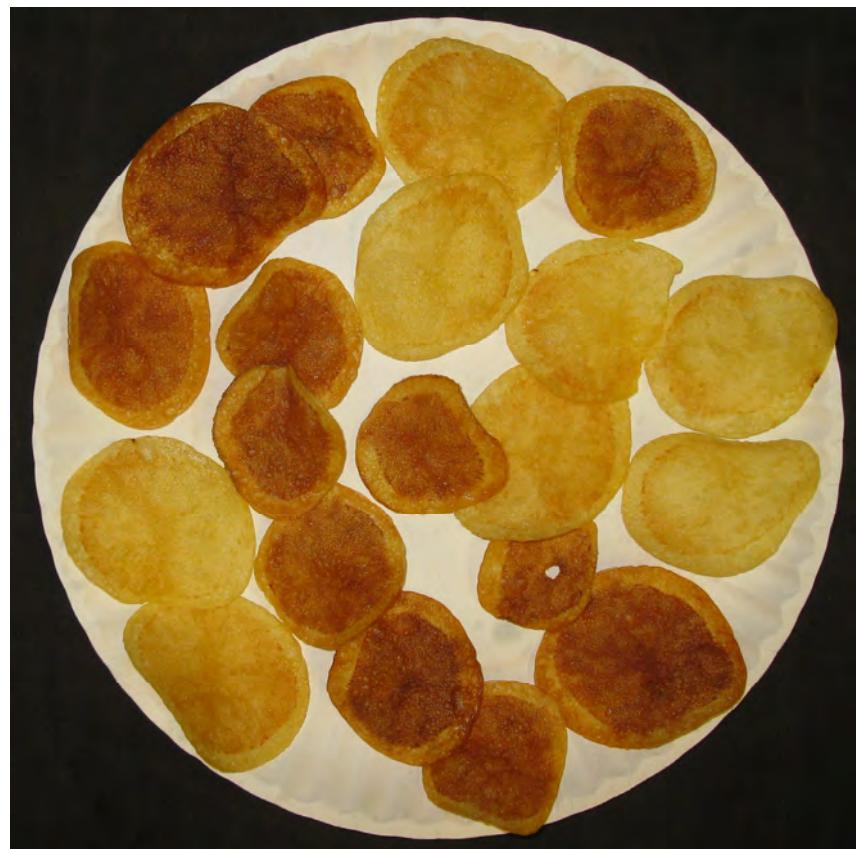
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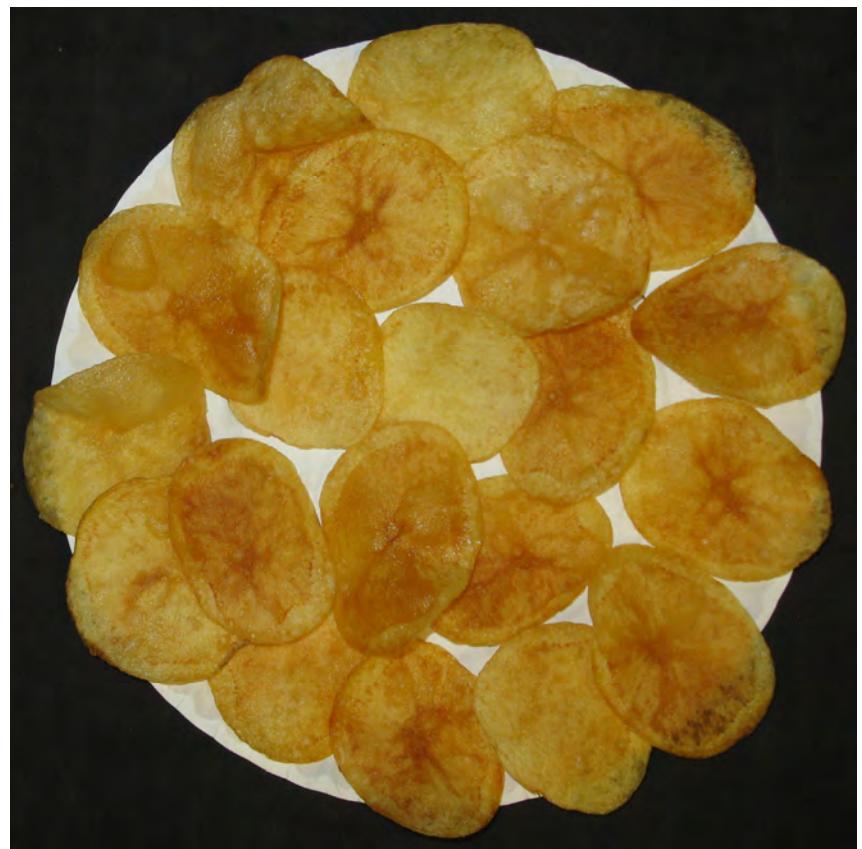
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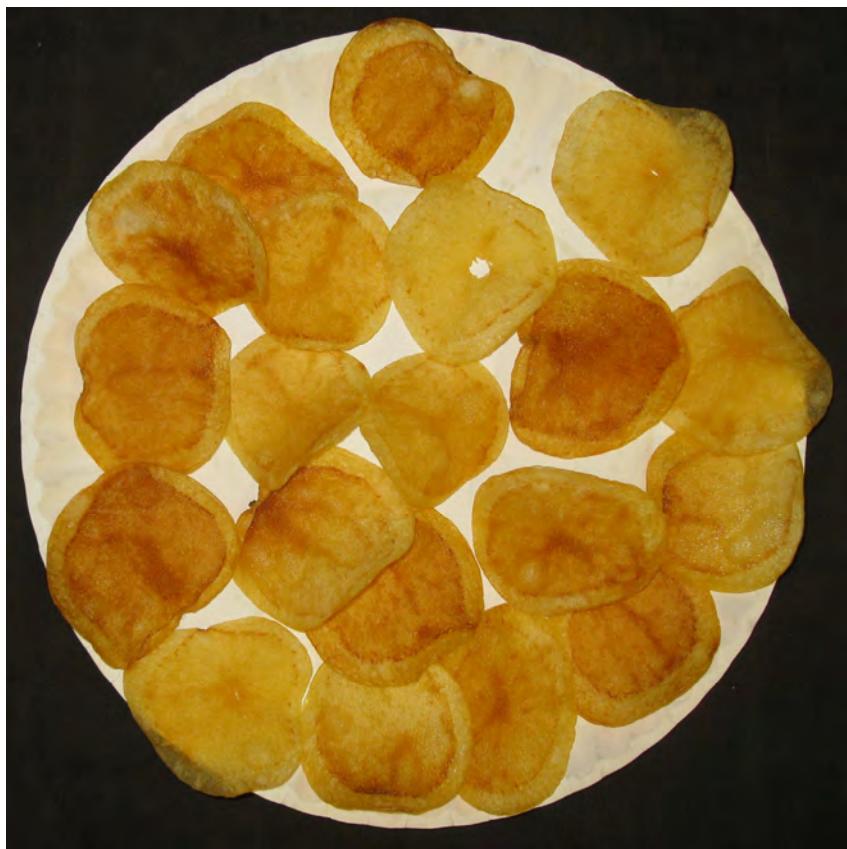




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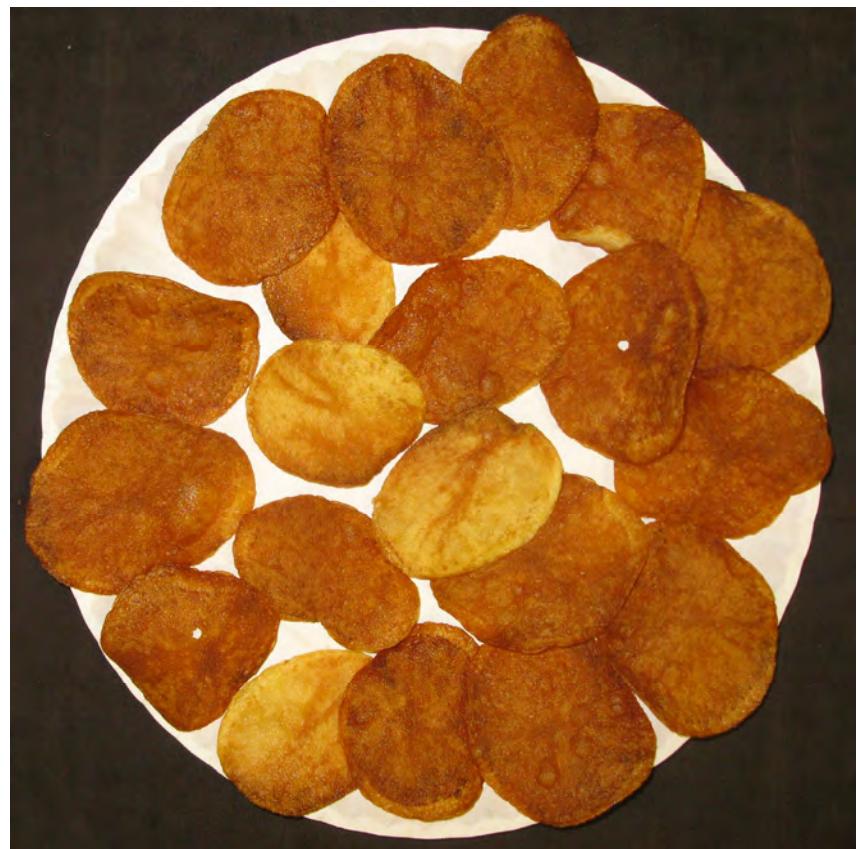


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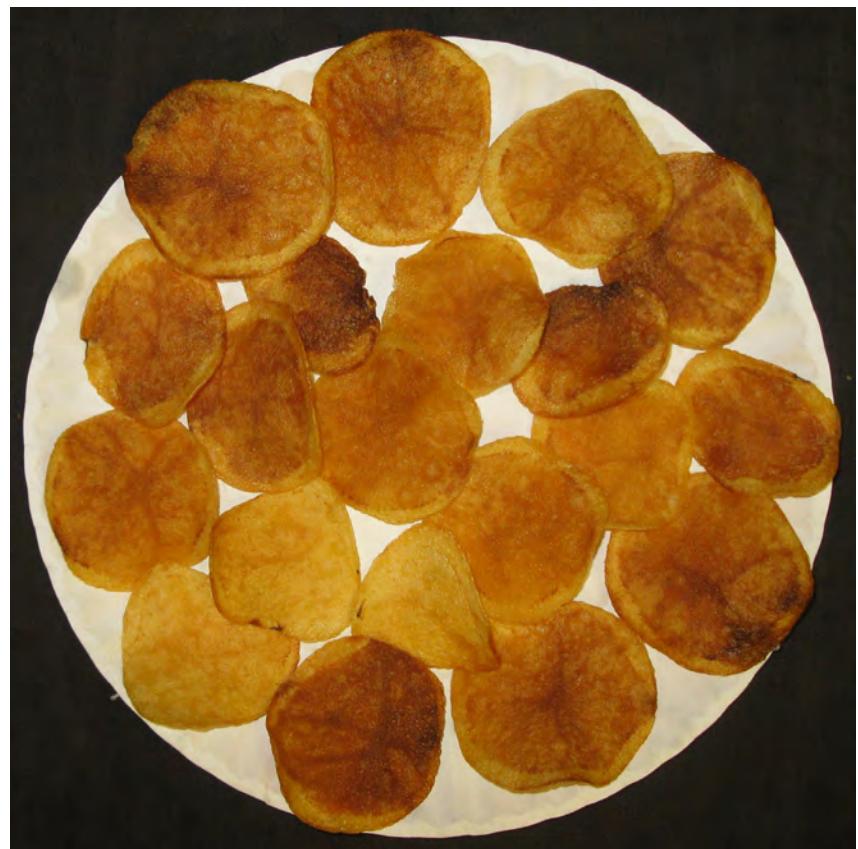
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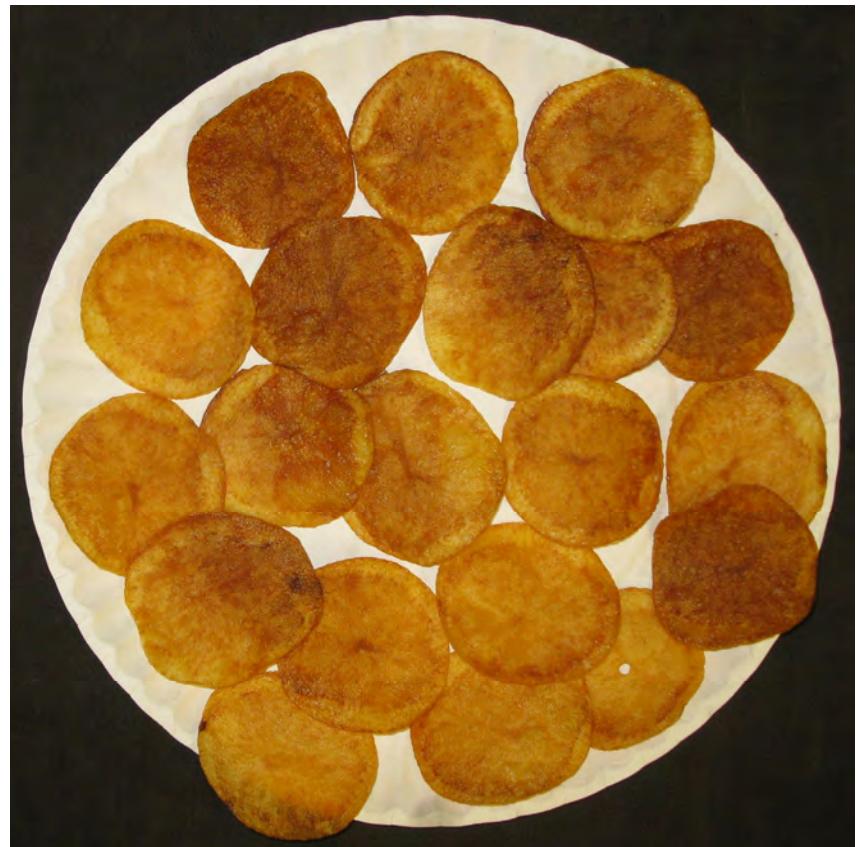
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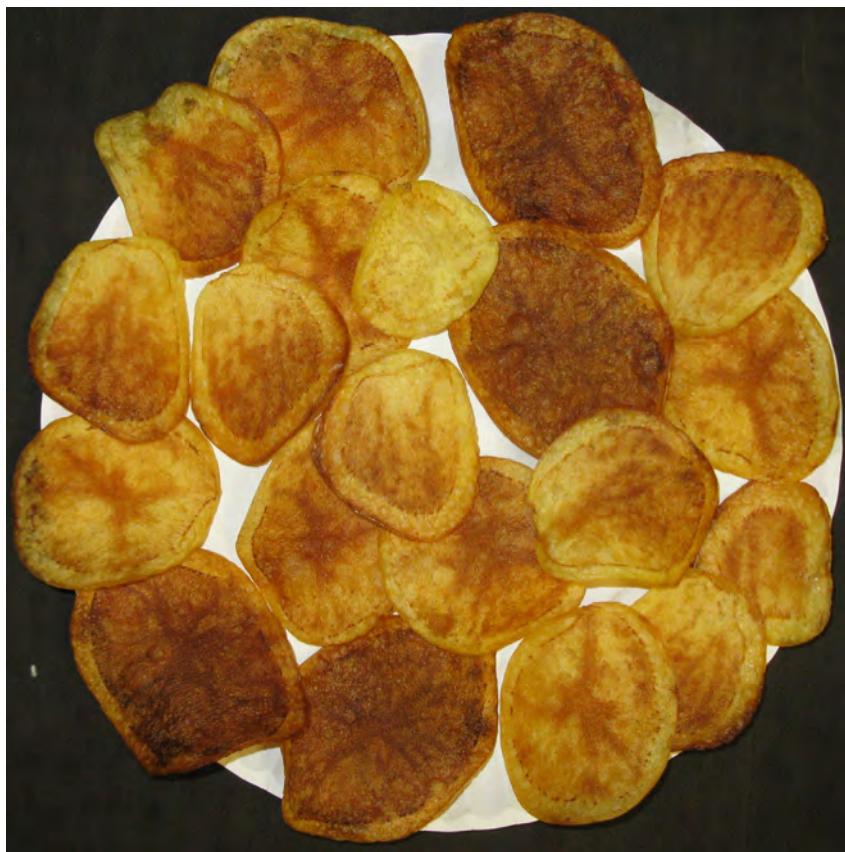




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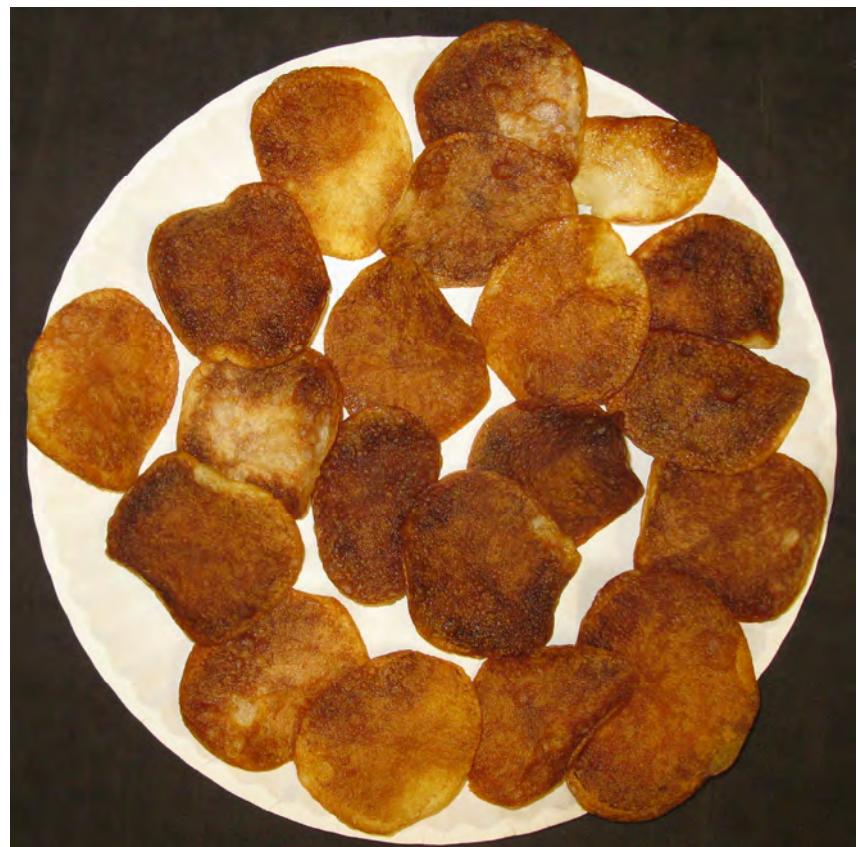
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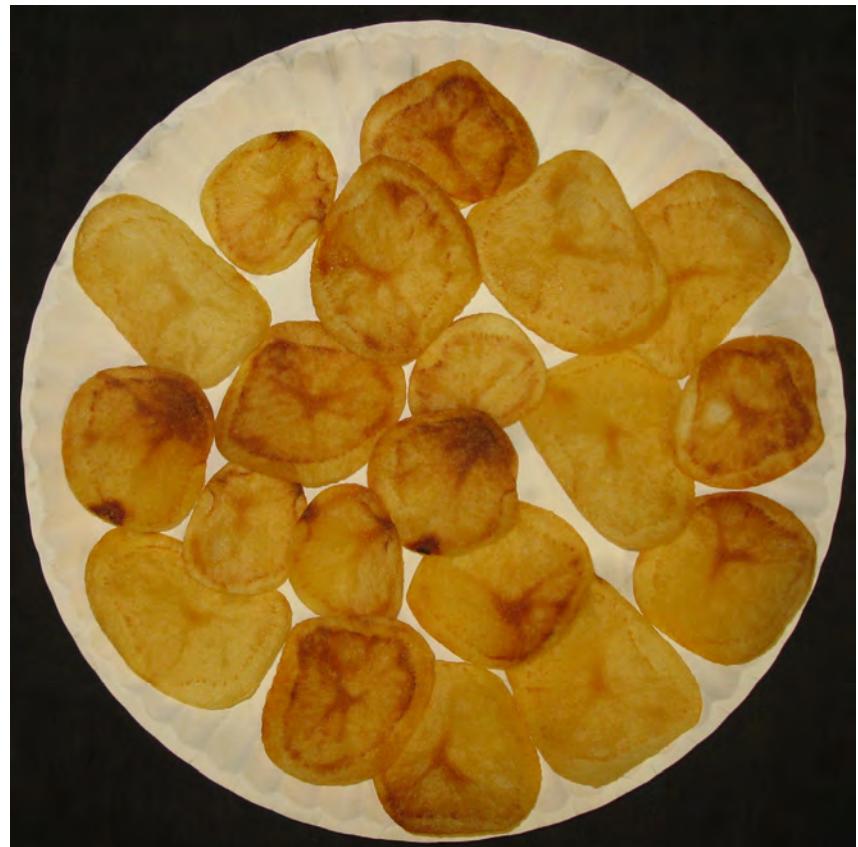
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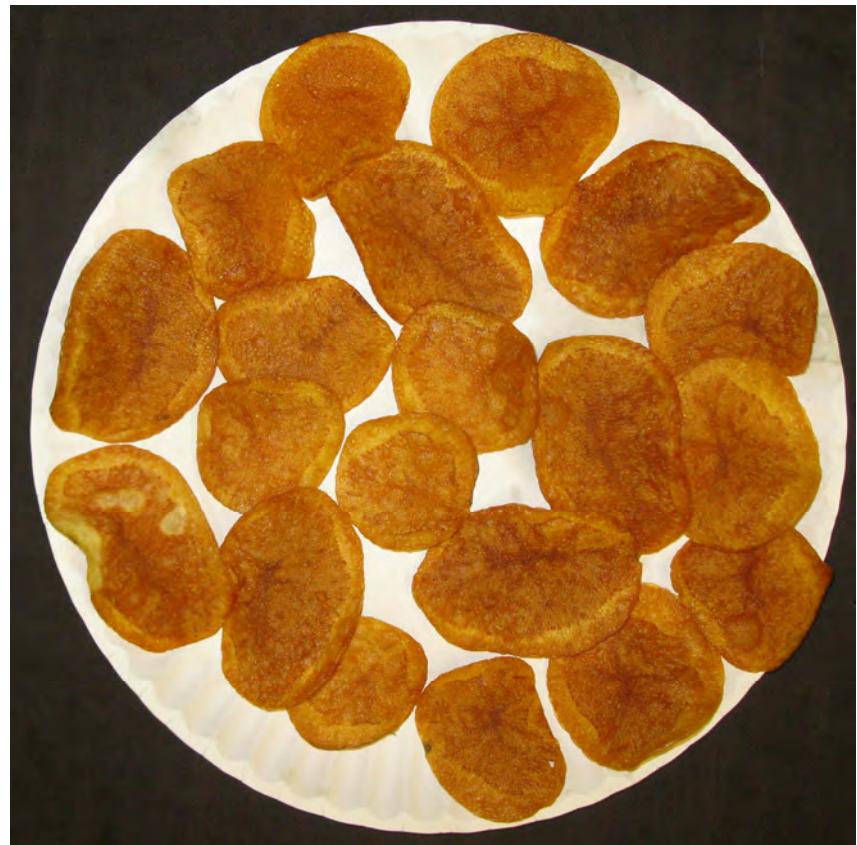




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44

AF 6655-1



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45

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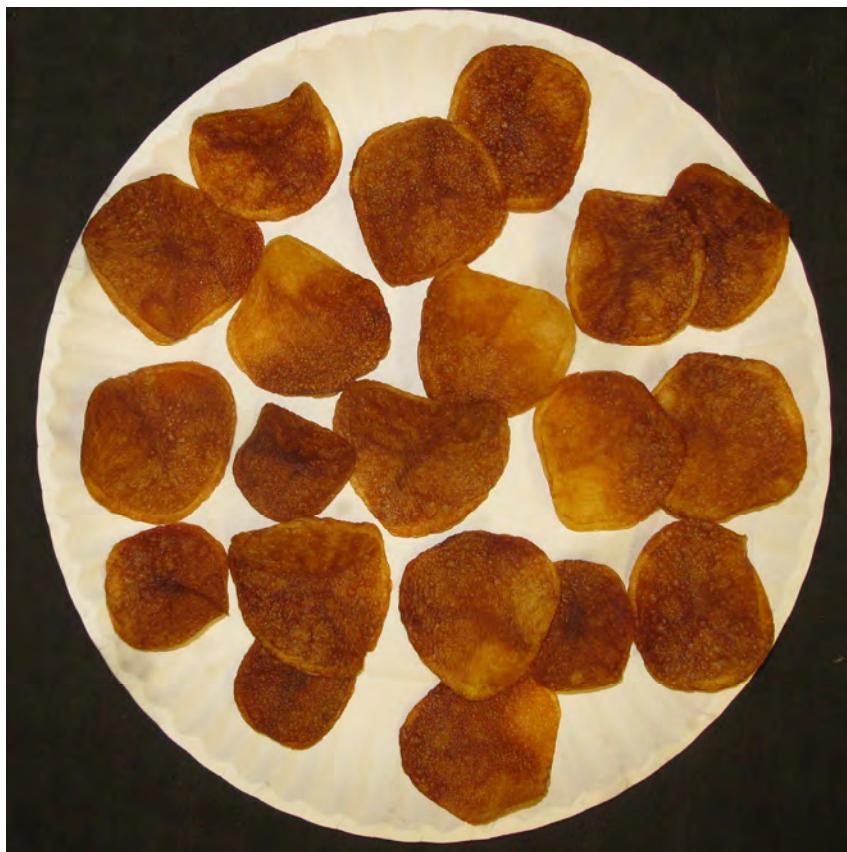


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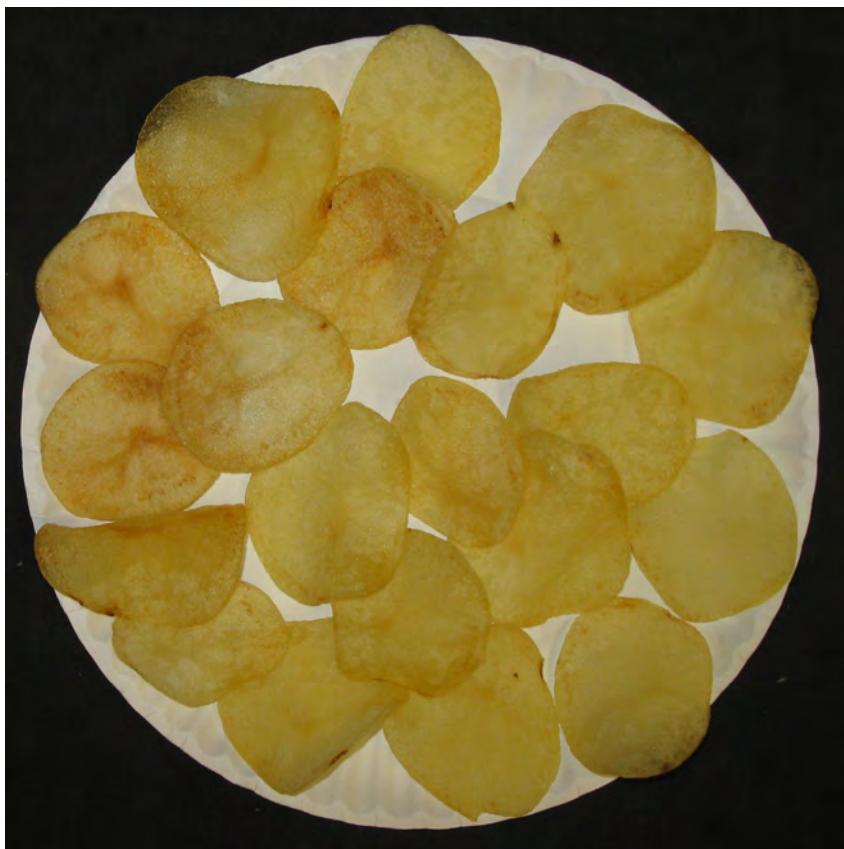
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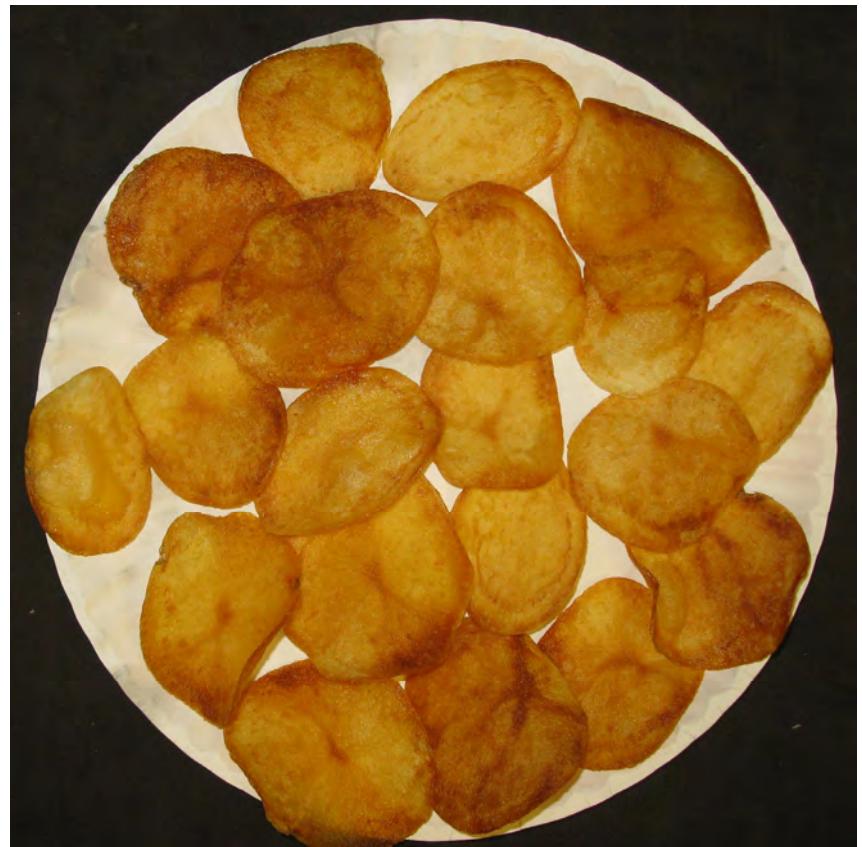


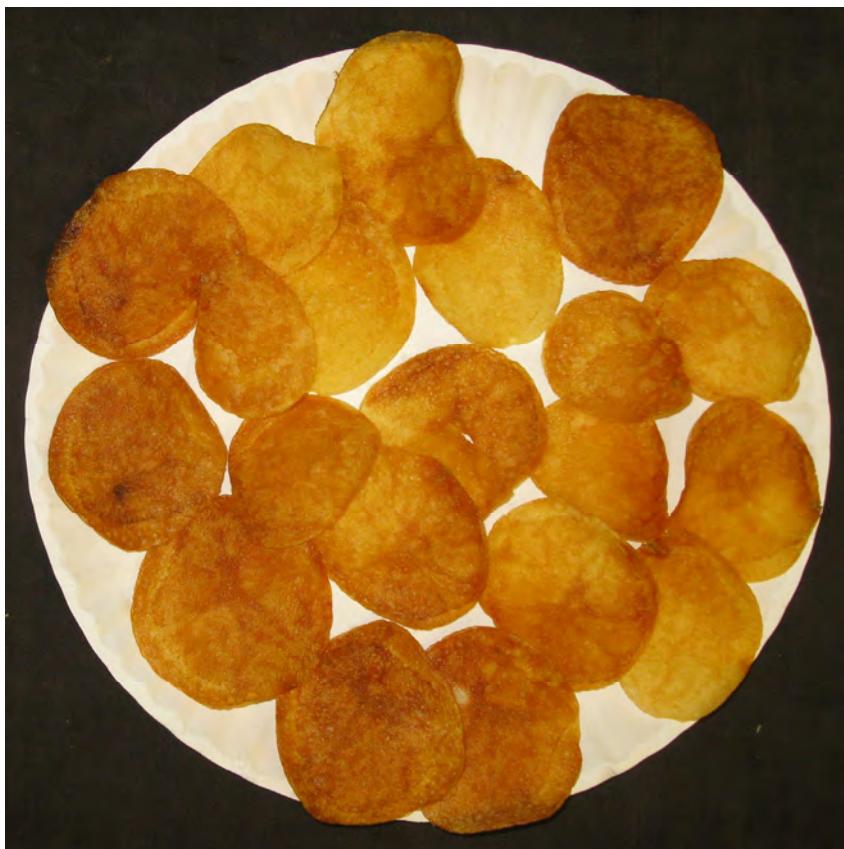
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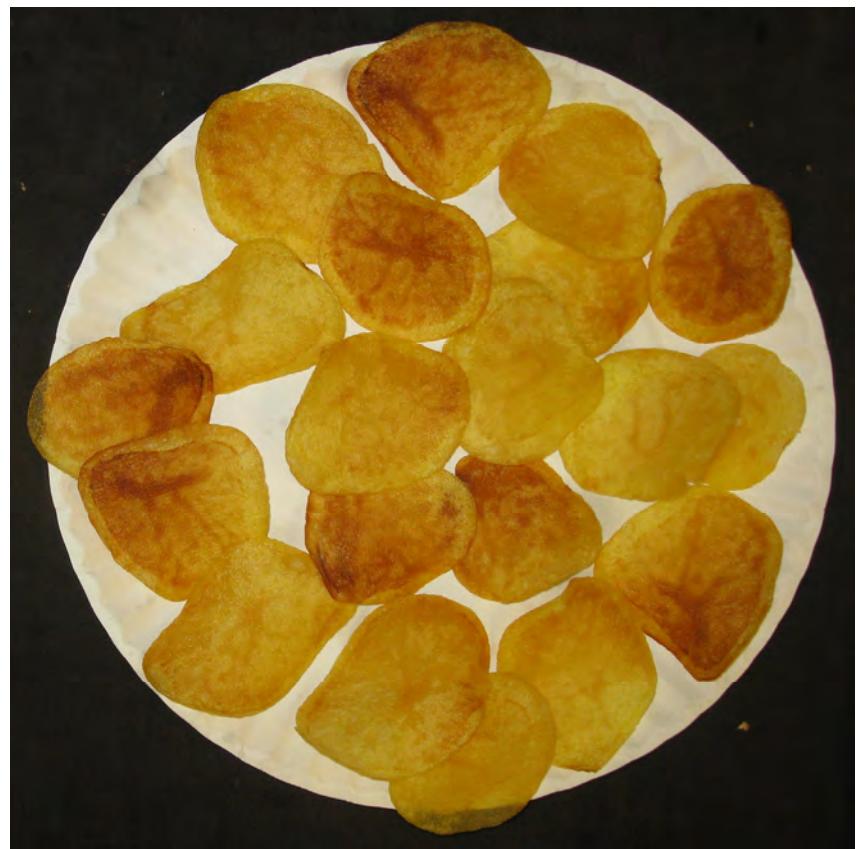


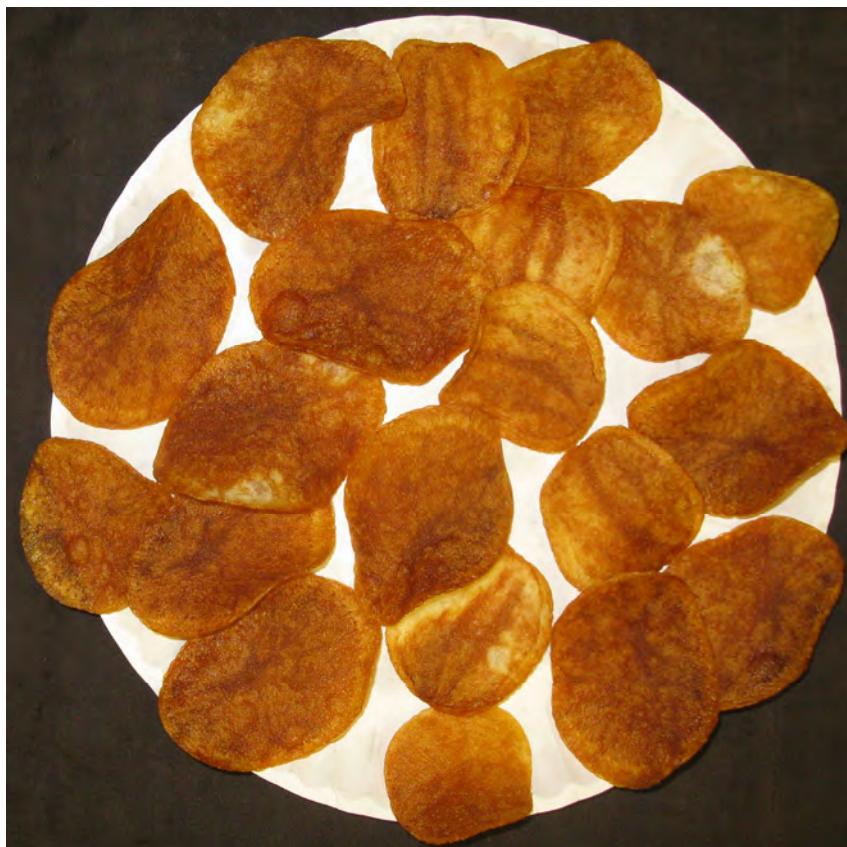


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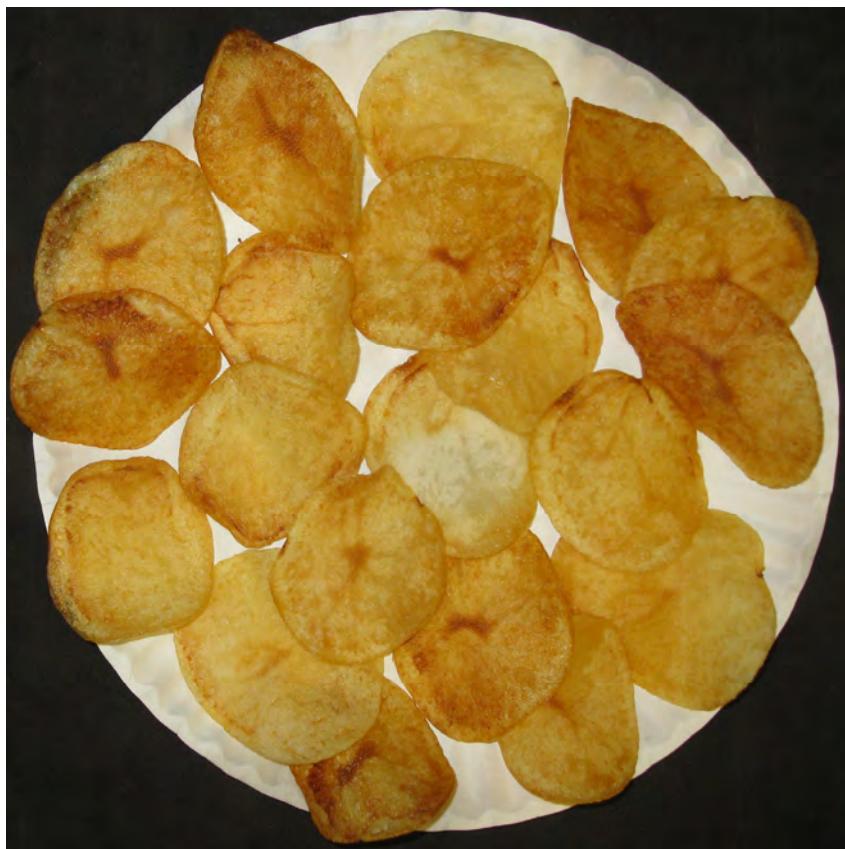




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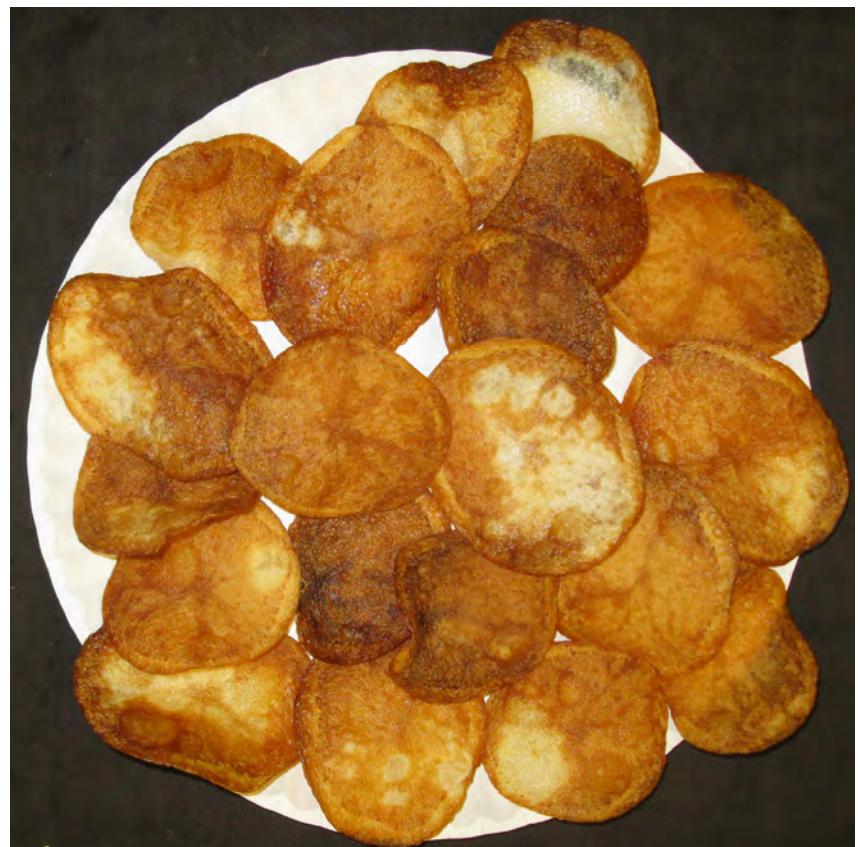
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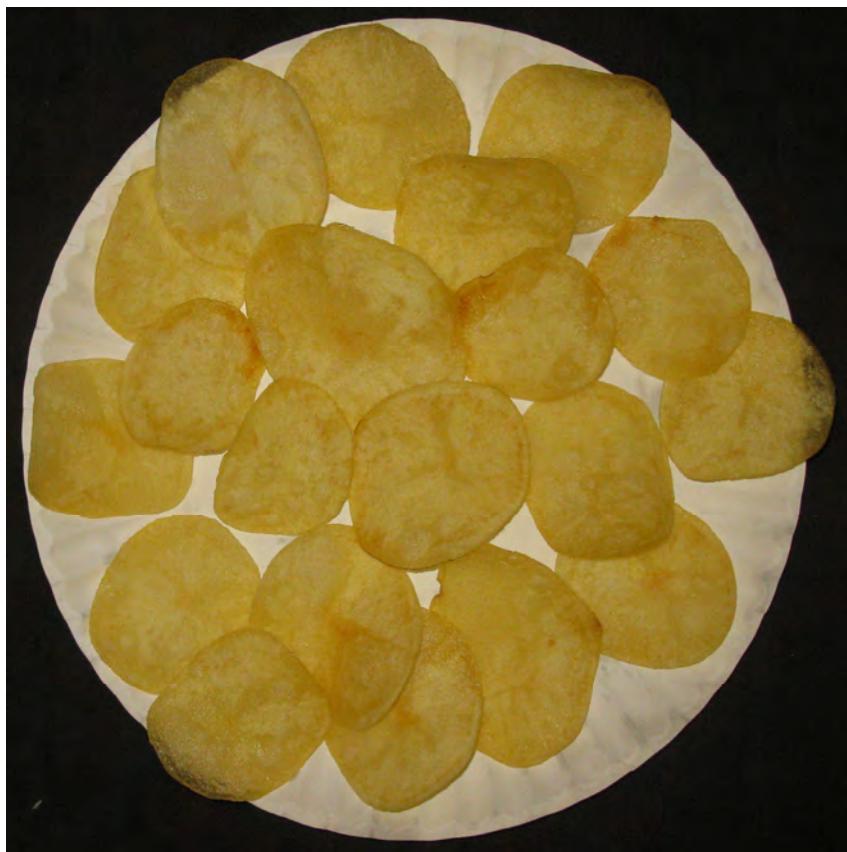




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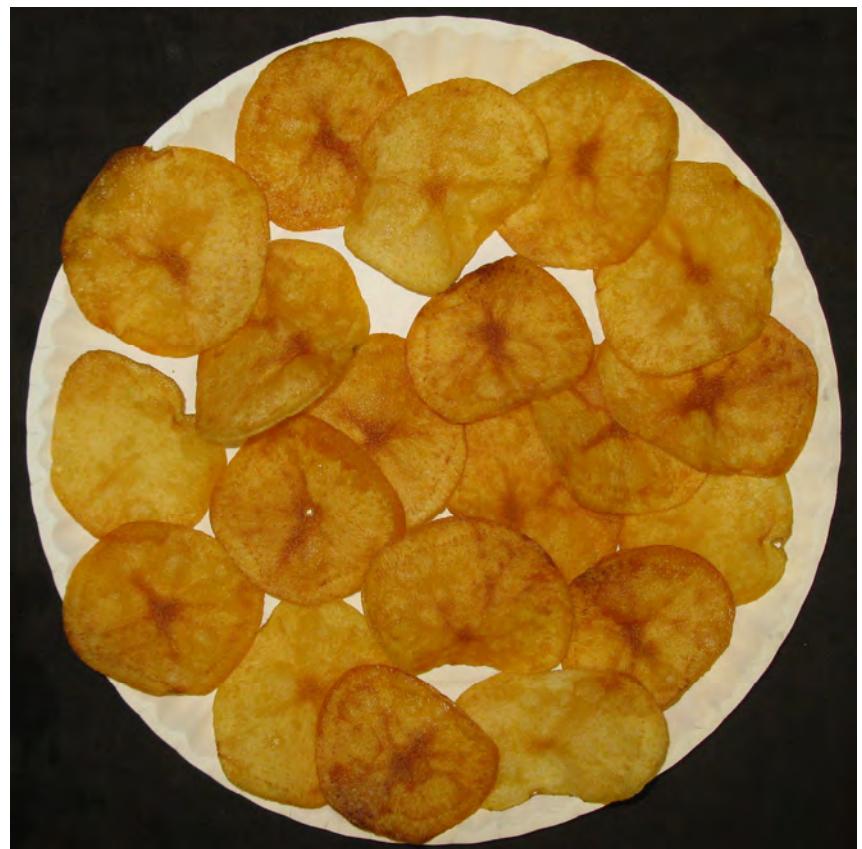


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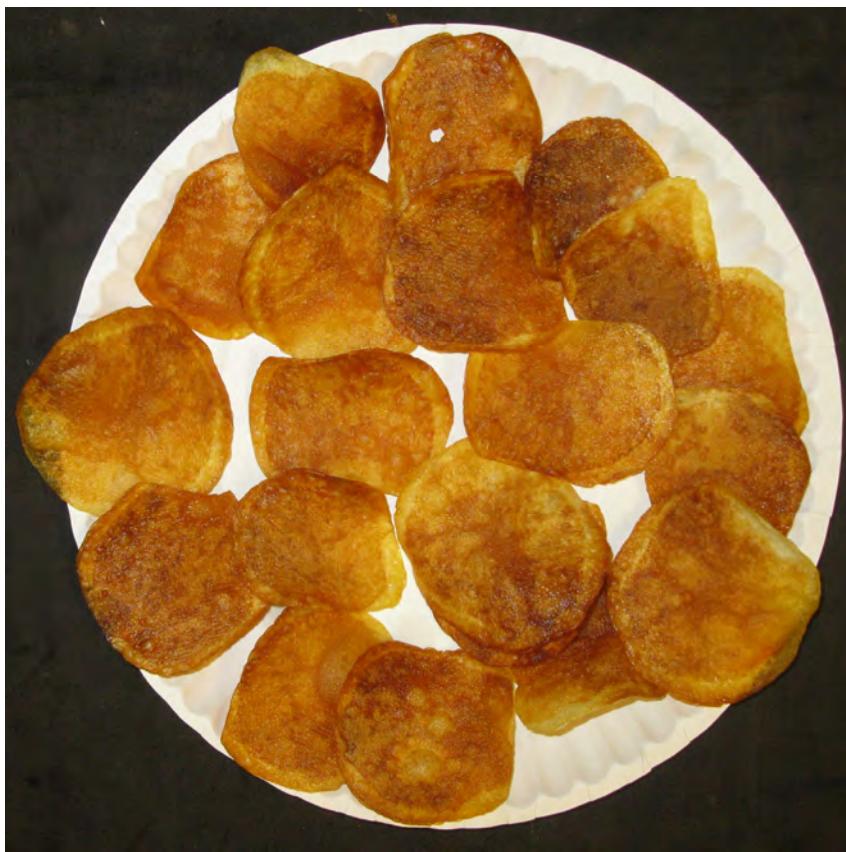




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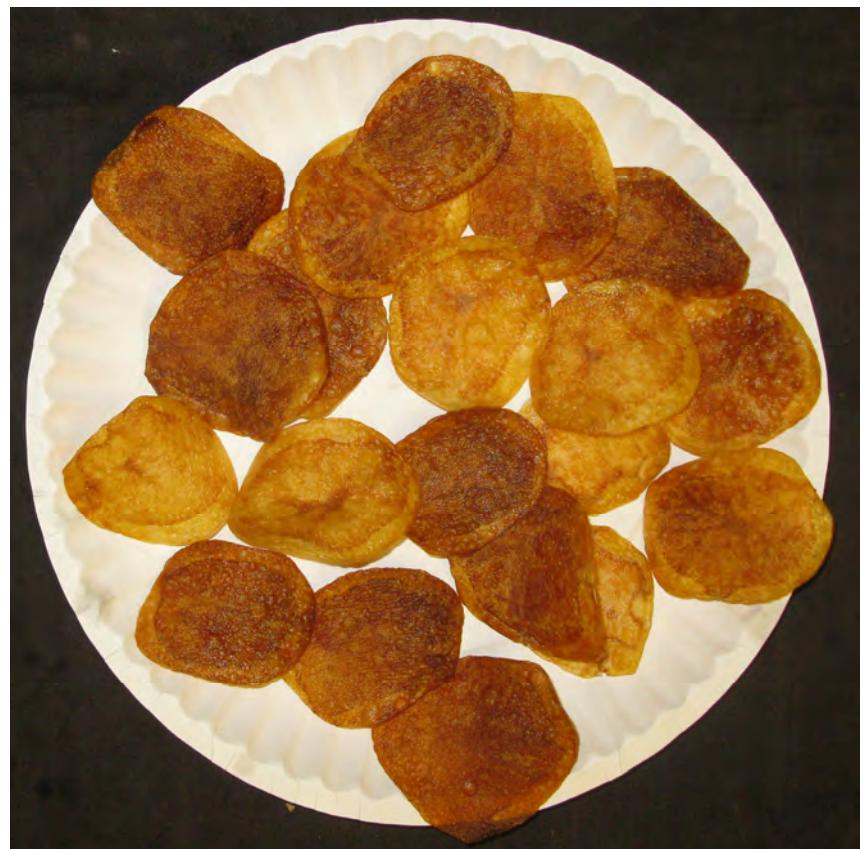
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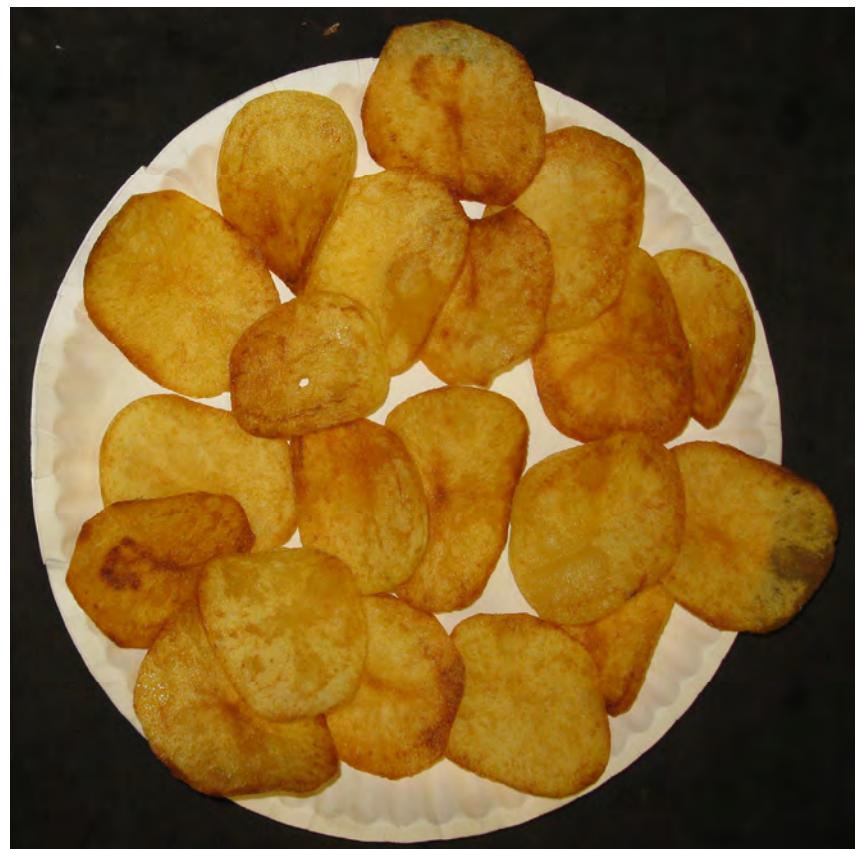
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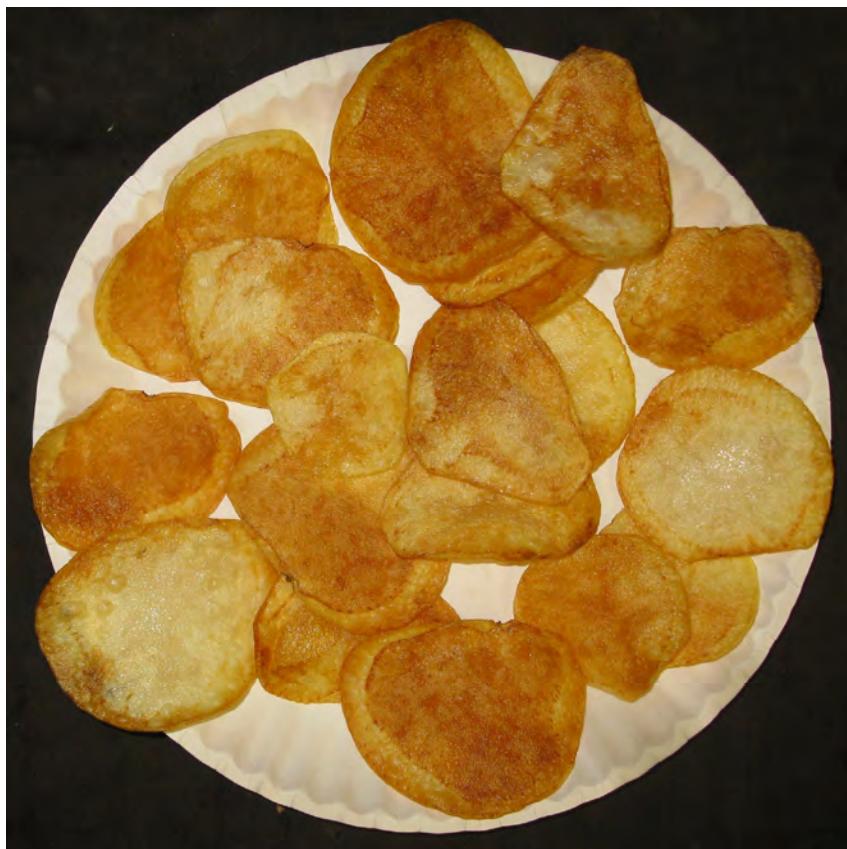




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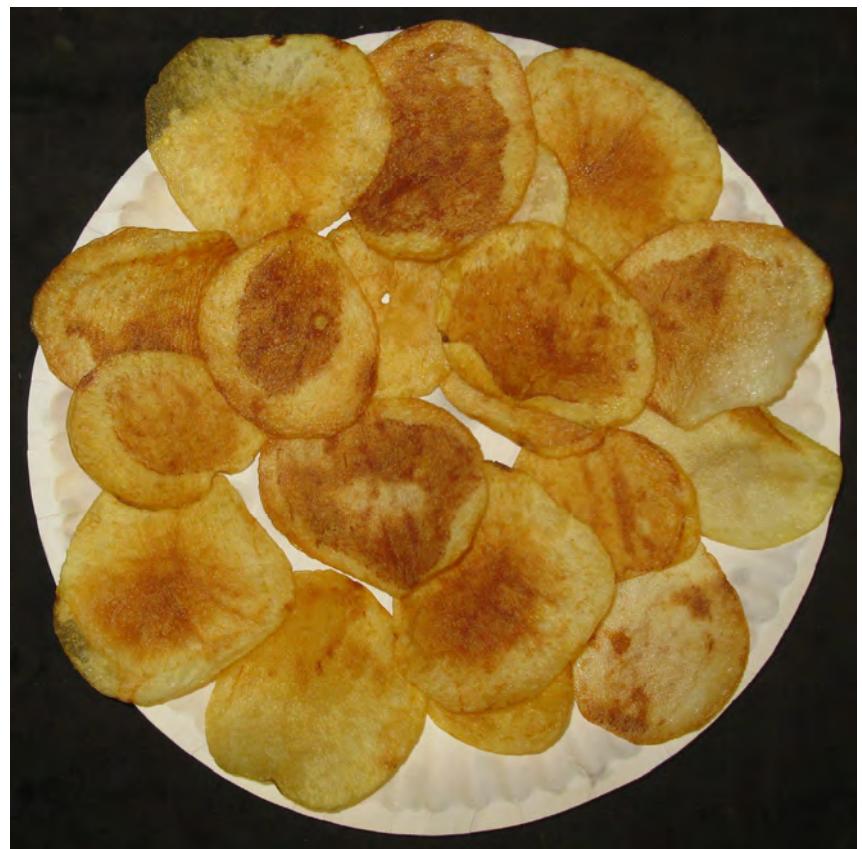
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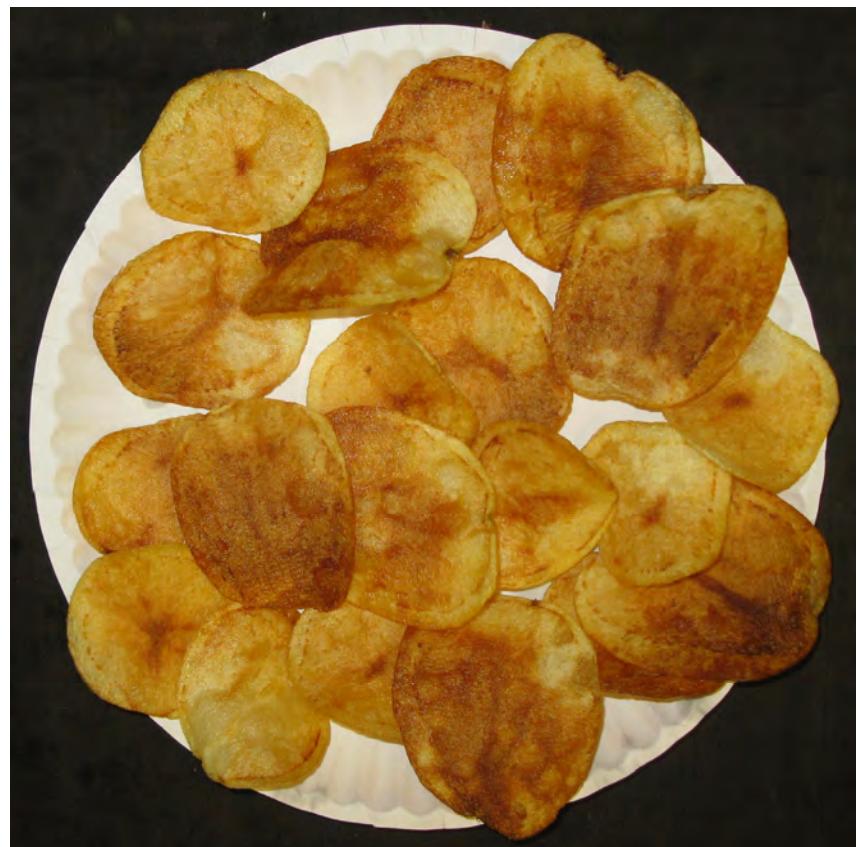
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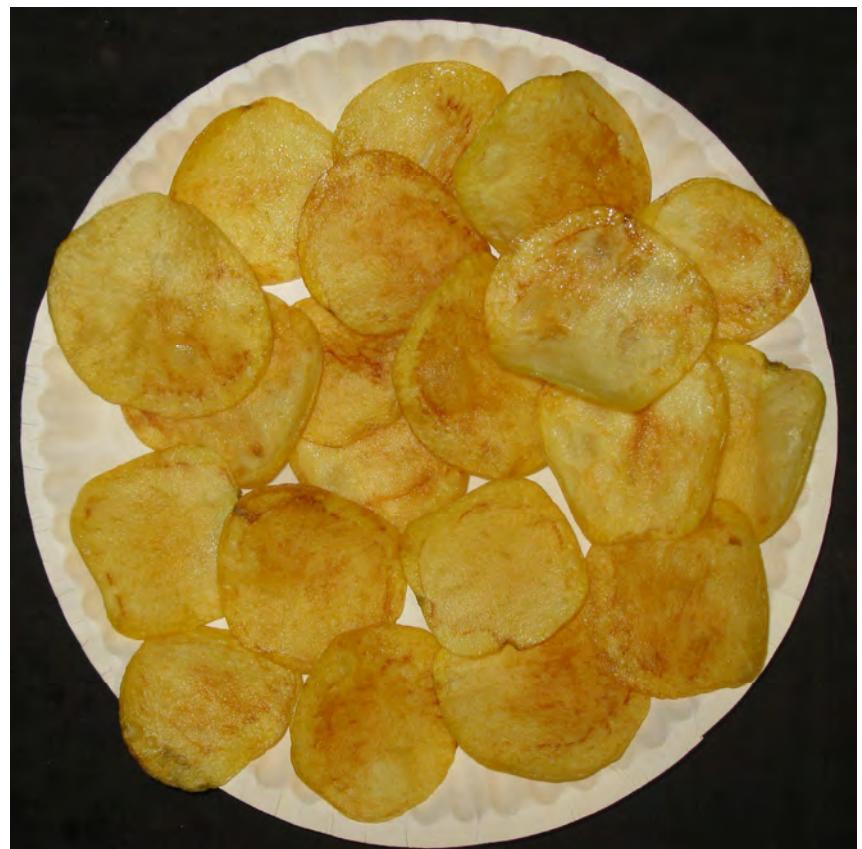
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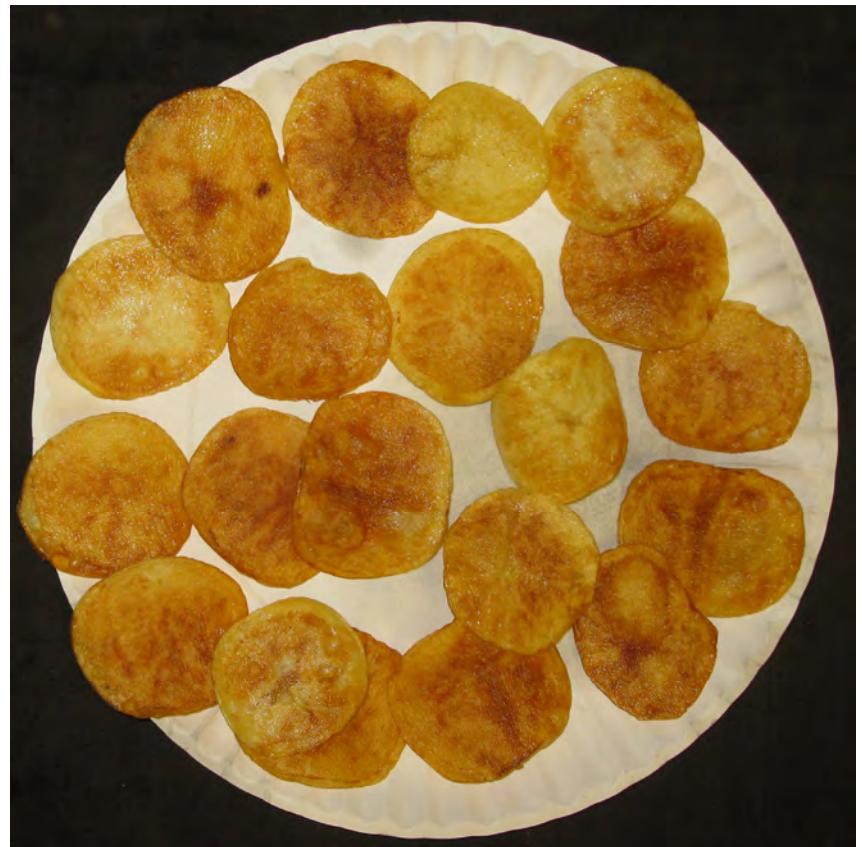
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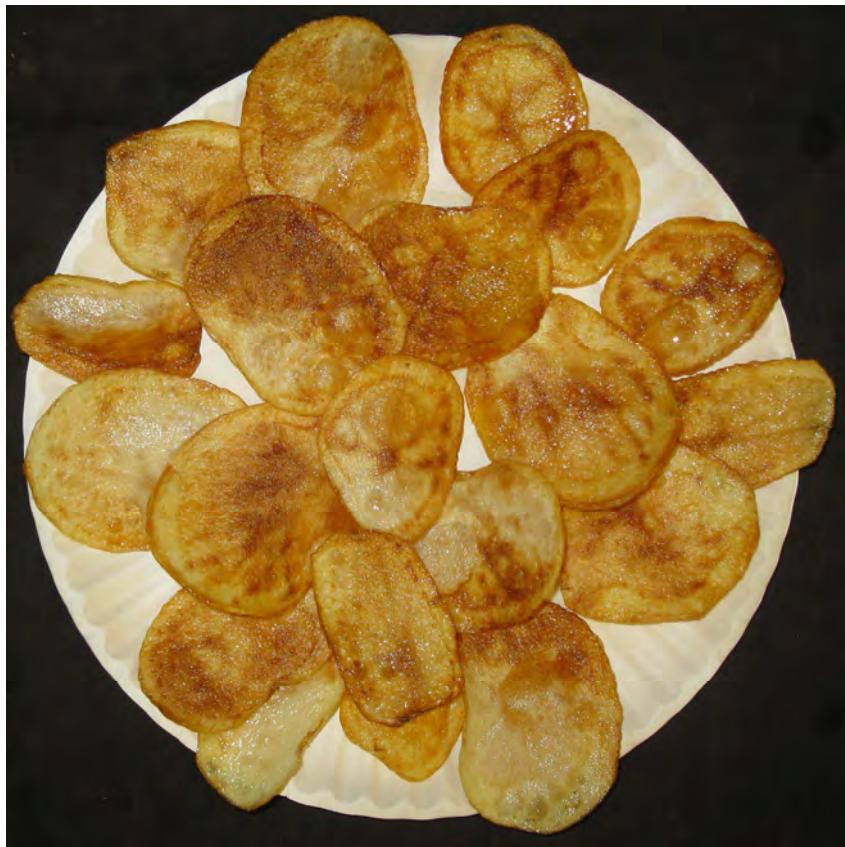




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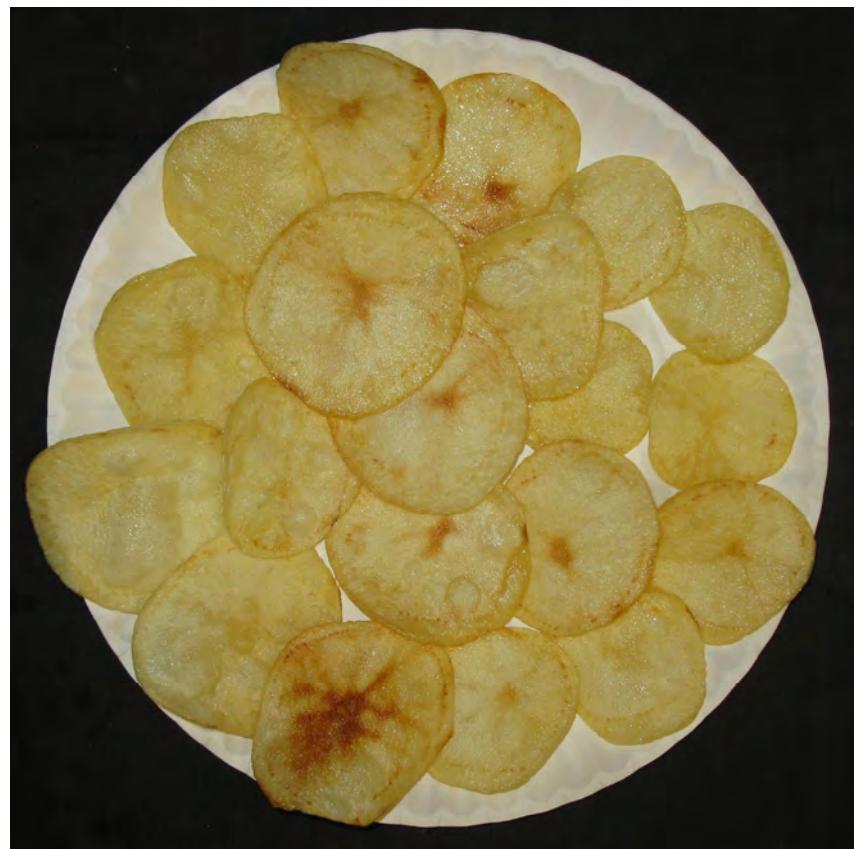
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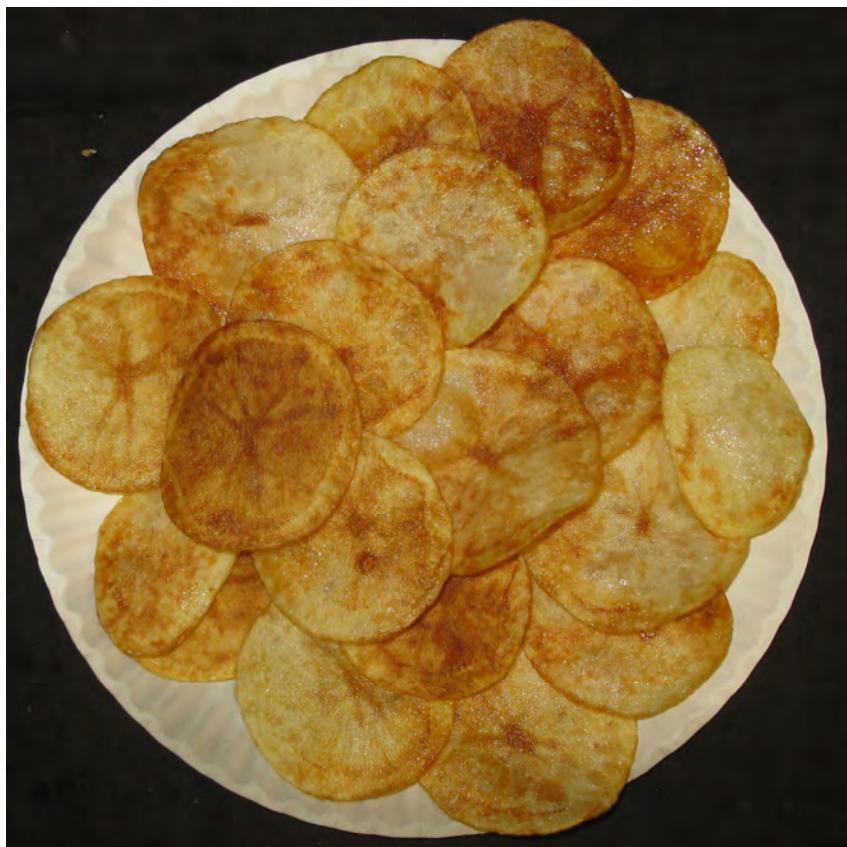




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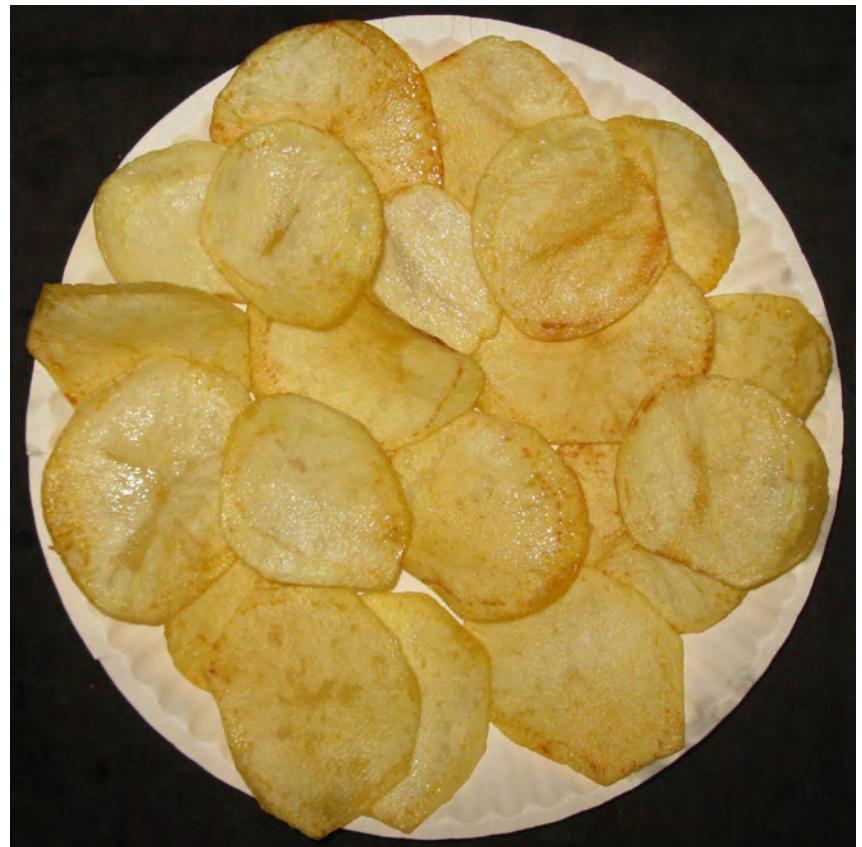
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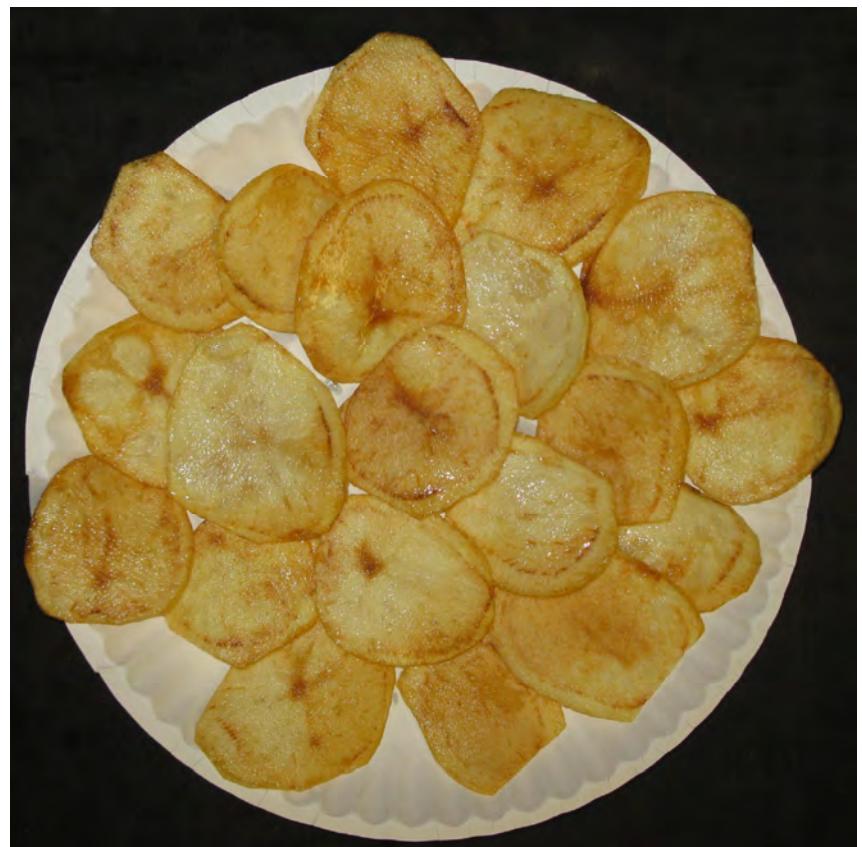
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