

60th ANNUAL WA COMMERCIAL SEED LOT TRIAL

June 2023

Cooperators:

WASHINGTON STATE UNIVERSITY

www.potatoes.wsu.edu

Departments of Horticulture, Plant Pathology & Cooperative Extension

WASHINGTON STATE POTATO COMMISSION

www.potatoes.com

WASHINGTON STATE POTATO FOUNDATION

WASHINGTON STATE DEPARTMENT OF AGRICULTURE

KEY TO FLAGS

MOSAIC:	Yellow Flag (see description below in comment section)
BLACKLEG:	Red Flag
LEAFROLL:	Orange Flag

WHITE FLAGS	(code to abbreviations)
Cal:	Calico
Chem/Herb:	Seed-borne herbicide carryover/chemical damage
PLO:	Phytoplasma such as Witches broom, Haywire, Purple Top, BLTVA
VM, OT, OV:	Variety Mix, Off-Type, Off-Type Variety

Comments:

Variety, seed grower, and source (state) is provided solely by the seed receiver. We transfer that information to this book and save the original tags. Please contact Mark Pavek (see below) with any concerns or changes.

There should be a plant every 10-12 inches. Exceptions: top of bottom of lot where planter ran out of seed, seed tubers too large for planter, or plant did not emerge. You may dig for seed pieces.

Each Seed lot is 2 rows wide each by 100 feet in length (200 ft total).

If a lot is shorter than 100 feet, the seed receiver did not submit a large enough sample

Plants were VISUALLY read, unless otherwise indicated. PVY test kits are used often.

MOSAIC does not necessarily mean the plant has PVY; rather, it is expressing symptoms that are commonly associated with PVY infection. It is likely, however, that those plants flagged with mosaic flags are infected with PVY. Moreover, PVY was confirmed in some flagged plants via an in-field test kit. PVS may be flagged as Mosaic.

NOTE: ALL PLANTS expressing visible symptoms were flagged.

Additional copies may be obtained from the Washington State Potato Commission, 108 Interlake RD, Moses Lake, WA 98837, (509)765-8845; or from Dr. Mark Pavek, mjpavek@wsu.edu, Washington State University, PO Box 646414, Pullman, WA 99164-6414. Electronic copies will also be available at potatoes.wsu.edu.

WSU Potato Field Day – Thursday June 22, 2023

Located at WSU Othello Research Unit – 1471 W Cox Rd, Othello
(4.5 miles east of Hwy. 26/17 Junction, On Booker Rd, ¼ Mile South of Hwy. 26)

8:30-8:55 am Coffee and donuts

8:55-9:00 am Sponsors recognition

9:00-9:50 am **Commercial Seed Lot Trial and Planting Depth and Seed Size Demos**
Mark Pavek – WSU Pullman

9:50-10:05 am **Potatoes USA: Setting the Plate for WA Growers**, *John Lundeen*– Potatoes USA, Denver

Concurrent Session I: Potato Cultural Management Practices Field Tour

10:15 **Crop water use changes with plant population, deficit irrigation x growth stage, reduced evaporation with Dragon-Line** *J. Meeuwsen, M. Pavek, Z. Holden, R. Garza, V. Cantu – WSU, Pullman*

10:30 **Grower supported direct tuber testing approach for detecting potato pathogens**
Chakradhar Mattupalli – WSU, Mt. Vernon

10:45 **Wound healing intervals impact economic returns** *Conor Buckley & Jake Blauer – WSU, Pullman*

11:00 **Role of planting time on yield and physiological age** *Morgan Southern & J. Blauer – WSU, Pullman*

11:15 **WSU postharvest, new & current research updates** *Jacob Blauer – WSU, Pullman*

11:30 **The effect of soil fumigation and cover crops on potato soil health** *Ruijun Qin – OSU, Hermiston*

11:45 **Comparative analysis of soil health status in agricultural and native soils in PNW region**
Sudha Upadhaya, E.H. Mayad, T. Potter, C. Gleason, D. Griffin LaHue, K. Frost, D. Wheeler, T. Paulitz – WSU

12:00 **Future directions with WA soil health potato research** *Steve Culman – WSU, Pullman*

12:10 pm - 1:00 pm

HOSTED LUNCH

Concurrent Session II: Potato Pest Management Field Tour

10:15 **Integrated insect pest management updates** *T. Waters, J. Darner, M. Spets – WSU, Benton/Franklin*

10:30 **Potato Virus Initiative: developing solutions update and discussion**
Nora Olsen and Alex Karasev– Univ. of Idaho

10:45 **Breeding for Columbia root-knot nematode resistance** *Max Feldman– USDA-ARS, Prosser*

11:00 **Systems approach to controlling nematodes in U.S. potato production.**
Cynthia Gleason – WSU, Pullman

11:15 **Updates on regional insect pest monitoring, WSU Potato Alerts, and the Potato Decision Aid System** *Carrie Wohleb – WSU, Pullman*

11:30 **Responses of different potato varieties to Sandea herbicide for yellow nutsedge control**
Rui Liu, Tim Waters, Mark Pavek – WSU, Prosser, Benton/Franklin Counties, Pullman

11:45 **Potato mop-top virus transmission and screening**
*Kylie Swisher Grimm, R. Quick, L. Cimrhakl, M. Feldman, A. Bowker USDA-ARS, Prosser, WA
Z. Holden, R. Garza, V. Cantu, J. Meeuwsen, M. Pavek – WSU Pullman & Othello*

12:00 pm - 1:00 pm

HOSTED LUNCH

CCA and pesticide recertification credits have been applied for (WA, OR, & ID)

Thank to our 2023 Field Day Sponsors!
We appreciate your support!

AG AMBASSADORS

AG WEST FARM CREDIT

**AG WORLD SUPPORT
SYSTEMS**

McCAIN FOODS

GROWER CHAMPION

LINDSAY/ZIMMATIC

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AGNEMA

COENERGY/CONNELL OIL

WASHINGTON STATE POTATO FOUNDATION

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WASHINGTON STATE UNIVERSITY POTATO GROUP

Additional thanks to our 2023 seed lot readers and trainees!
We appreciate your efforts!

Thanks to everyone behind the scenes:

Jake Blauer
Matthew Blua
Vito Cantu
Michael Clouse
Katy Dray
Malachi Garza
Rudy Garza
Carlos Gonzalez
Oscar Gutbrod
Dan Hane
Alexa Hintze
Zach Holden
Jake Meeuwsen
Brandy Parker
John Steinbock
Tim Waters & Crew
Mark Weber
Carrie Wohleb & Crew
Nina Zidack and Montana Potato Seed Certification Team
Oregon State Department of Ag
Washington State Department of Ag
Washington State Potato Commission
Washington State University
Lamb Weston
McCain Foods Inc
Simplot Raw Products

Special Thanks

ELITE SEED & ED SCHNEIDER for RESEARCH SEED DONATIONS

DRAGON-LINE/MONTY TEETER for IRRIGATION RESEARCH
DONATION

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
1-2	I	Clearwater	AgriNW - McNary	Schutter	MT	28-Mar	-	-	
1-2	II	Clearwater	AgriNW - McNary	Arcadia	MT	28-Mar	-	-	
1-2	III	Clearwater	AgriNW - River View	Stoddard	ID	28-Mar	-	-	
1-2	IV	Clearwater	AgriNW - Boardman	Schutter	MT	28-Mar	-	-	
3-4	I	Ivory	AgriNW - Boardman	Streich	MT	28-Mar	-	-	
3-4	II	Ivory	AgriNW - Boardman	Not provided	MT	28-Mar	-	-	
3-4	III	Clearwater	AgriNW	Kimm Bros	MT	28-Mar	-	-	
3-4	IV	Clearwater	AgriNW - Boardman	Beutler, Wes	ID	28-Mar	-	-	
5-6	I	Clearwater	AgriNW - McNary	Beutler	ID	28-Mar	4	-	
5-6	II	Clearwater	AgriNW - McNary	Kimm, Bill	MT	28-Mar	-	-	
5-6	III	Clearwater	AgriNW - Eureka	Groot Farms	CAN-AB	28-Mar	-	-	
5-6	IV	Clearwater	AgriNW - River View	Spring Creek	MT	28-Mar	-	-	
7-8	I	Umatilla	AgriNW - Boardman	Schutter	MT	28-Mar	3	-	
7-8	II	Umatilla	AgriNW - River View	Spring Creek	MT	28-Mar	4	-	
7-8	III	Clearwater	AgriNW - Eureka	Big Sky Seed	MT	28-Mar	-	-	
7-8	IV	Clearwater	AgriNW - McNary	Foth, Matt	MT	28-Mar	-	-	
9-10	I	Umatilla	AgriNW - McNary	Coles Corner	MT	28-Mar	4	-	
9-10	II	Umatilla	AgriNW - Eureka	Haarsma	CAN-AB	28-Mar	-	-	
9-10	III	Umatilla	AgriNW - McNary	Schutter, Nick	MT	28-Mar	-	-	
9-10	IV	Umatilla	AgriNW - Boardman	Beutler	ID	28-Mar	-	-	
11-12	I	Burbank	AgriNW - Eureka	Haarsma	CAN-AB	28-Mar	-	-	
11-12	II	Burbank	AgriNW - Eureka	Groot Farms	CAN-AB	28-Mar	-	-	
11-12	III	Ranger	AgriNW - River View	Hensley	MT	28-Mar	4	-	
11-12	IV	Ranger	AgriNW - River View	Kimm Bros	MT	28-Mar	-	-	
13-14	I	Umatilla	AgriNW - Eureka	Foth Farms	MT	28-Mar	8	-	
13-14	II	Alturas	AgriNW - Eureka	Haarsma	CAN-AB	28-Mar	-	-	
13-14	III	Alturas	AgriNW - Eureka	Big Sky Seed	MT	28-Mar	2	-	
13-14	IV	Alturas	AgriNW - Eureka	Telford	ID	28-Mar	5	-	
15-16	I	Atlantic	Elite Seed	Cal-Ore	OR	28-Mar	-	-	
15-16	II	Perline	WSU Spuds	Macy Farms	OR	28-Mar	-	-	
15-16	III	Perline	WSU Spuds	Macy Farms	OR	28-Mar	-	-	
15-16	IV	Perline	WSU Spuds	Macy Farms	OR	28-Mar	-	-	

* Tier I = North, II/III = Middle, IV = South

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
17-18	I	Unknown	Elite Seed	Silver Creek	ID	28-Mar	11	-	
17-18	II	Clearwater	Elite Seed	Droge	MT	28-Mar	-	1	
17-18	III	Clearwater	Elite Seed	Foth Farms	MT	28-Mar	-	1	
17-18	IV	Clearwater	Elite Seed	Lake Farms	MT	28-Mar	-	-	
19-20	I	Norkotah	Elite Seed	SHB	WA	28-Mar	31	-	
19-20	II	Norkotah 296	Elite Seed	Arnold	ID	28-Mar	-	-	
19-20	III	Norkotah 278	Elite Seed	Gallatin Valley	MT	28-Mar	-	-	
19-20	IV	Clearwater	Elite Seed	Triple R	ID	28-Mar	-	2	
21-22	I	No tag	AgriNW	No tag	No tag	28-Mar	-	-	
21-22	II	Ranger	Elite Seed	Kimm Bros	MT	28-Mar	-	9	
21-22	III	Ranger	Elite Seed	Lake Farms	MT	28-Mar	2	-	
21-22	IV	Ranger	Elite Seed	Jorgensen	ID	28-Mar	12	-	
23-24	I	Ranger	Elite Seed	Starkel	MT	28-Mar	33	-	
23-24	II	Ranger	Elite Seed	Cottom	MT	28-Mar	-	-	
23-24	III	Ranger	Elite Seed	Foth Farms	MT	28-Mar	1	1	
23-24	IV	Ranger	Elite Seed	Lake, Jack	MT	28-Mar	-	-	
25-26	I	Ranger	Elite Seed	Arnold	ID	28-Mar	2	-	
25-26	II	Caribou	Elite Seed	Jorgensen	ID	28-Mar	-	-	
25-26	III	Caribou	Elite Seed	Lajoie Farms	ME	28-Mar	12	-	
25-26	IV	Ivory	Elite Seed	Gilbert	ID	28-Mar	-	-	
27-28	I	Hamlin	Elite Seed	Foster	ID	28-Mar	-	-	1 - Variety Mix
27-28	II	Ivory	Elite Seed	Foster	ID	28-Mar	2	-	
27-28	III	Lamoka	Elite Seed	Cal-Ore	OR	28-Mar	-	-	
27-28	IV	Ivory	Elite Seed	Starkel	MT	28-Mar	-	10	
29-30	I	Hamlin	Elite Seed	Foster	ID	28-Mar	1	-	
29-30	II	Alturas	Elite Seed	Lake, Jack	MT	28-Mar	-	-	
29-30	III	Shepody	Elite Seed	Foth Farms	MT	28-Mar	7	-	
29-30	IV	Teton	Elite Seed	Arnold	ID	28-Mar	-	-	
31-32	I	Dakota	Elite Seed	RDO	ND	28-Mar	1	2	
31-32	II	Dakota	Elite Seed	Jorde	MT	28-Mar	-	5	
31-32	III	Teton	Elite Seed	Arnold	ID	28-Mar	-	-	
31-32	IV	Teton	Elite Seed	Kamp	MT	28-Mar	-	-	

* Tier I = North, II/III = Middle, IV = South

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
33-34	I	Clearwater	Skone and Connors	Foth Farms	MT	28-Mar	-	-	
33-34	II	Clearwater	Skone and Connors	Starkel	MT	28-Mar	-	-	
33-34	III	Clearwater	Skone and Connors	Starkel	MT	28-Mar	1	-	
33-34	IV	Clearwater	Skone and Connors	Foth Farms	MT	28-Mar	-	-	
35-36	I	Norkotah C-3	Skone and Connors	Starkel	MT	28-Mar	-	-	
35-36	II	Norkotah C-3	Skone and Connors	Cottom	MT	28-Mar	-	-	
35-36	III	Norkotah 278	Skone and Connors	Cottom	MT	28-Mar	-	-	
35-36	IV	Norkotah 278	Skone and Connors	Cottom	MT	28-Mar	-	-	
37-38	I	Umatilla	Skone and Connors	Foth Farms	MT	28-Mar	3	-	
37-38	II	Umatilla	Skone and Connors	SHB	WA	28-Mar	1	-	
37-38	III	Umatilla	Skone and Connors	Bedlington	WA	28-Mar	-	-	
37-38	IV	Umatilla	Skone and Connors	Foth Farms	MT	28-Mar	9	-	
39-40	I	Clearwater	Skone and Connors	Beutler	ID	11-Apr	1	-	
39-40	II	Clearwater	Skone and Connors	Cal-Ore	OR	11-Apr	-	-	
39-40	III	Ranger	Skone and Connors	Fleming Farms	MT	28-Mar	2	-	
39-40	IV	Ranger	Skone and Connors	Cottom	MT	28-Mar	-	-	
41-42	I	Clearwater	Skone and Connors	Cal-Ore	OR	11-Apr	1	-	
41-42	II	Clearwater	Skone and Connors	Beutler	ID	11-Apr	8	-	
41-42	III	Burbank	Skone and Connors	Westland Seed	MT	11-Apr	6	-	
41-42	IV	Norkotah C-3	Skone and Connors	Cottom	MT	11-Apr	-	-	
43-44	I	Clearwater	100 Circles	Venhuisen	MT	11-Apr	-	-	
43-44	II	Clearwater	100 Circles	Beutler	ID	11-Apr	4	-	
43-44	III	Clearwater	100 Circles	Foster	ID	11-Apr	4	-	
43-44	IV	Clearwater	100 Circles	Kimm Bros	MT	11-Apr	-	-	
45-46	I	Clearwater	100 Circles	Crapo	ID	11-Apr	-	-	
45-46	II	Shepody	100 Circles	Gilbert	ID	11-Apr	57	-	1 - PLO
45-46	III	Hamlin	100 Circles	Foster	ID	11-Apr	-	-	
45-46	IV	Hamlin	100 Circles	Starkel	MT	11-Apr	11	-	
47-48	I	Ivory	100 Circles	Foster	ID	11-Apr	-	-	
47-48	II	Ivory	100 Circles	Gilbert	ID	11-Apr	2	-	
47-48	III	Ivory	100 Circles	Starkel	MT	11-Apr	-	-	
47-48	IV	Ivory	100 Circles	Gem Valley	ID	11-Apr	-	1	

* Tier I = North, II/III = Middle, IV = South

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
49-50	I	Ranger	100 Circles	Ricks	ID	11-Apr	1	-	
49-50	II	Ranger	100 Circles	Kimm Bros	MT	11-Apr	-	1	
49-50	III	Ranger	100 Circles	Neibaur	ID	11-Apr	12	-	
49-50	IV	Ranger	100 Circles	Cottom	MT	11-Apr	-	-	
51-52	I	Ranger	100 Circles	Gilbert	ID	11-Apr	1	-	
51-52	II	Ranger	100 Circles	Lake, Dan	MT	11-Apr	-	-	
51-52	III	Ranger	100 Circles	Kandler Farms	ID	11-Apr	4	-	
51-52	IV	Ranger	100 Circles	Foth Farms	MT	11-Apr	-	2	
53-54	I	Shepody	100 Circles	Belly River	CAN	11-Apr	-	-	
53-54	II	Shepody	100 Circles	Foth Farms	MT	11-Apr	5	-	
53-54	III	Caribou	100 Circles	Maine Farms	ME	11-Apr	4	-	
53-54	IV	Alturas	Elite Seed	Droge	MT	11-Apr	1	-	
55-56	I	Clearwater	Elite Seed	Jorgensen	ID	11-Apr	-	-	
55-56	II	Clearwater	Elite Seed	Spring Creek	MT	11-Apr	-	-	
55-56	III	Clearwater	Elite Seed	Starkel	MT	11-Apr	1	-	
55-56	IV	Challenger	Elite Seed	Gem Valley	ID	11-Apr	-	-	
57-58	I	Burbank	AgriNW - Boardman	Gallatin Valley	MT	11-Apr	-	-	
57-58	II	Burbank	AgriNW - River View	Gallatin Valley	MT	11-Apr	-	-	
57-58	III	Burbank	AgriNW - McNary	Schutter, Nick	MT	11-Apr	-	-	
57-58	IV	Burbank	AgriNW - Boardman	Schutter	MT	11-Apr	-	-	
59-60	I	Umatilla	AgriNW - River View	Dykema	MT	11-Apr	3	-	
59-60	II	Umatilla	AgriNW - River View	Stoddard	ID	11-Apr	-	-	
59-60	III	Umatilla	AgriNW - River View	Dykema	MT	11-Apr	-	-	
59-60	IV	Umatilla	AgriNW - McNary	Spring Creek	MT	11-Apr	9	-	
61-62	I	Umatilla	AgriNW - Boardman	Stoddard	ID	11-Apr	-	-	
61-62	II	Umatilla	AgriNW - McNary	Kimm, Bill	MT	11-Apr	-	-	
61-62	III	Umatilla	AgriNW - River View	Foth, Matt	MT	11-Apr	7	-	
61-62	IV	Umatilla	AgriNW - Boardman	Buyan, Bill	MT	11-Apr	-	-	
63-64	I	Clearwater	Friehe Farms	Haarsma	MT	11-Apr	-	-	
63-64	II	Not provided	Friehe Farms	Not provided	Not provided	11-Apr	-	-	
63-64	III	No tag	AgriNW	No tag	No tag	11-Apr	-	-	1 - Calico
63-64	IV	No tag	AgriNW	No tag	No tag	11-Apr	-	-	

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	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
65-66	I	Clearwater	Friehe Farms	Schutter	MT	11-Apr	-	-	
65-66	II	Umatilla	Friehe Farms	Schutter	MT	11-Apr	6	-	
65-66	III	Umatilla	Integrity Ag	Spring Creek	MT	11-Apr	6	-	
65-66	IV	Umatilla	Integrity Ag	SHB	WA	11-Apr	8	-	
67-68	I	Alturas	100 Circles	Gilbert	ID	25-Apr	-	-	
67-68	II	Clearwater	100 Circles	Neibaur	ID	25-Apr	-	-	1 - Calico
67-68	III	Clearwater	100 Circles	Ricks	ID	25-Apr	1	-	
67-68	IV	Umatilla	Integrity Ag	Schutter	MT	11-Apr	2	-	
69-70	I	Alturas	100 Circles	Ricks	ID	25-Apr	5	-	
69-70	II	Alturas	100 Circles	Crapo	ID	25-Apr	-	-	
69-70	III	Alturas	100 Circles	Gibbs	ID	25-Apr	3	-	
69-70	IV	Alturas	100 Circles	Foster	ID	25-Apr	21	-	
71-72	I	Umatilla	100 Circles	Dykema	MT	25-Apr	-	-	
71-72	II	Umatilla	100 Circles	Tobol Farms	MT	25-Apr	13	-	
71-72	III	Umatilla	100 Circles	Schutter	MT	25-Apr	4	-	
71-72	IV	Alturas	100 Circles	Droge	MT	25-Apr	1	-	
73-74	I	Umatilla	100 Circles	Gibbs	ID	25-Apr	3	-	
73-74	II	Umatilla	100 Circles	Kimm Bros	MT	25-Apr	1	-	
73-74	III	Umatilla	100 Circles	Kandler Farms	ID	25-Apr	-	-	
73-74	IV	Umatilla	100 Circles	Venhuisen	MT	25-Apr	1	-	
75-76	I	Umatilla	Elite Seed	Spring Creek	MT	25-Apr	3	-	
75-76	II	Hamlin	100 Circles	CSS - Holbrook	ID	25-Apr	-	-	
75-76	III	Alverstone	100 Circles	CSS - Boardman	OR	25-Apr	-	-	
75-76	IV	Umatilla	100 Circles	Beutler	ID	25-Apr	1	-	
77-78	I	Umatilla	Elite Seed	Schutter	MT	25-Apr	1	-	
77-78	II	Umatilla	Elite Seed	Foth Farms	MT	25-Apr	3	-	
77-78	III	Norkotah 278	Elite Seed	Foster	ID	25-Apr	2	-	
79-80	I	Chieftain	Elite Seed	Spring Creek	MT	25-Apr	-	-	
79-80	II	Norkotah 278	Elite Seed	Foster	ID	25-Apr	4	-	
79-80	III	Norkotah 278	Elite Seed	Cottom	MT	25-Apr	-	-	
81-82	I	Burbank	AgriNW - Boardman	Stoddard	ID	25-Apr	-	-	
81-82	II	Burbank	AgriNW - Boardman	Venhuisen	MT	25-Apr	-	-	
81-82	III	Burbank	AgriNW - McNary	Kimm, Martin	MT	25-Apr	-	-	
83-84	I	Burbank	AgriNW - River View	Dykema	MT	25-Apr	-	-	
83-84	II	Burbank	AgriNW - McNary	Kimm, Bill	MT	25-Apr	-	-	
83-84	III	Burbank	AgriNW - McNary	Buyan, Bill	MT	25-Apr	-	-	

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	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
85-86	I	Burbank	AgriNW - River View	Schutter	MT	25-Apr	-	-	
85-86	II	Constance	Smith/Morrison	Parkland	CAN-AB	25-Apr	-	-	
85-86	III	Constance	Smith/Morrison	Ebe Farms	WA	25-Apr	-	-	
87-88	I	Chieftain	Smith/Morrison	Pacific Potato	CAN	25-Apr	-	-	
87-88	II	Chieftain	Smith/Morrison	Pieper Farms	MN	25-Apr	3	-	
87-88	III	Chieftain	Smith/Morrison	Pieper Farms	MN	25-Apr	-	-	
89-90	I	Chieftain	Smith/Morrison	Cascade Farms	WA	25-Apr	1	-	
89-90	II	Chieftain	Smith/Morrison	Ebe Farms	WA	25-Apr	1	1	
89-90	III	Chieftain	Smith/Morrison	Ebe Farms	WA	25-Apr	1	-	
91-92	I	Actrice	Smith/Morrison	Ebe Farms	WA	25-Apr	-	-	
91-92	II	Chieftain	Smith/Morrison	John Miller Farms	ND	25-Apr	-	-	
91-92	III	Chieftain	Smith/Morrison	Cal-Ore	OR	25-Apr	2	-	
93-94	I	Jelly	Smith/Morrison	Karren Farms	UT	25-Apr	-	-	
93-94	II	Nobleese	Smith/Morrison	Ebe Farms	WA	25-Apr	-	-	
93-94	III	Whitney	Smith/Morrison	Kroeker Farms	CAN-MB	25-Apr	-	-	
95-96	I	Umatilla	Kehl Farms	Gallatin Valley	MT	25-Apr	-	-	
95-96	II	Umatilla	Kehl Farms	Arcadia	MT	25-Apr	-	-	
95-96	III	Umatilla	Kehl Farms	Countrywide	NE	25-Apr	-	-	
97-98	I	Umatilla	Kehl Farms	Schutter	MT	25-Apr	7	-	
97-98	II	Umatilla	Kehl Farms	Stoddard	ID	25-Apr	-	-	
97-98	III	Clearwater	Kehl Farms	Foster	ID	25-Apr	2	-	
99-100	I	Lamoka	Kehl Farms	Macy Farms	OR	25-Apr	-	-	
99-100	II	Clearwater	Kehl Farms	Telford	ID	25-Apr	-	-	
99-100	III	Alturas	Kehl Farms	Gibbs	ID	25-Apr	16	-	
101-102	I	Lamoka	Kehl Farms	Brown Farms	CAN	25-Apr	-	-	
101-102	II	Wanneta	Kehl Farms	Countrywide	NE	25-Apr	4	-	
101-102	III	Clearwater	Kehl Farms	Foth Farms	MT	25-Apr	1	-	
103-104	I	Umatilla	WHB	SHB	WA	25-Apr	8	-	
103-104	II	Burbank	Kehl Farms	Schutter	MT	25-Apr	-	-	1 - Calico
103-104	III	FL 1867	Kehl Farms	SHB	WA	25-Apr	9	-	
105-106	I	Umatilla	WHB	Streich	MT	25-Apr	-	-	
105-106	II	Clearwater	WHB	Schutter	MT	25-Apr	-	-	
105-106	III	Clearwater	WHB	Streich	MT	25-Apr	-	-	
107-108	I	Ranger	WHB	Cottom	MT	25-Apr	2	-	
107-108	II	Ranger	WHB	Lake Farms	MT	25-Apr	1	-	
107-108	III	Ranger	WHB	SHB	WA	25-Apr	17	-	

* Tier I = North, II/III = Middle, IV = South

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	Comments and/or Other Flags
109-110	I	Caribou	WHB	CSS - Holbrook	ID	25-Apr	-	-	
109-110	II	Caribou	WHB	Jorgensen	ID	25-Apr	-	-	
109-110	III	Atlantic	TMCF	Thompson Seed	CAN	25-Apr	-	-	
111-112	I	Ivory	TMCF	Whole Seed Farms	NE	25-Apr	-	-	
111-112	II	Ivory	TMCF	Whole Seed Farms	NE	25-Apr	-	-	
111-112	III	Shepody	TMCF	Foth Farms	MT	25-Apr	3	-	
113-114	I	Clearwater	TMCF	Macy Farms	OR	25-Apr	-	-	
113-114	II	Clearwater	TMCF	Whole Seed Farms	NE	25-Apr	-	-	
113-114	III	Alverstone	TMCF	CSS Farms	OR	25-Apr	-	-	
115-116	I	Burbank	TMCF	Schutter	MT	25-Apr	-	-	
115-116	II	Atlantic	TMCF	Macy Farms	OR	25-Apr	2	-	
115-116	III	Dakota	TMCF	Stoddard	ID	25-Apr	-	-	
117-118	I	Umatilla	Saddle View Farms	SHB	WA	25-Apr	2	-	
117-118	II	Burbank	Saddle View Farms	SHB	WA	25-Apr	6	-	4 - Chem
117-118	III	Burbank	Integrity Ag	Schutter	MT	25-Apr	-	-	
119-120	I	Burbank	Friehe Farms	Schutter	MT	25-Apr	-	-	
119-120	II	Umatilla	Integrity Ag	Weidenaar Ranches	MT	25-Apr	-	-	
119-120	III	Burbank	Integrity Ag	Weidenaar Ranches	MT	25-Apr	-	-	
121-122	I	Umatilla	Friehe Farms	Buyan, Bill	MT	25-Apr	1	-	
121-122	II	Burbank	Skone and Connors	Cottom	MT	25-Apr	-	-	
121-122	III	Norkotah 296	Skone and Connors	Cal-Ore	OR	25-Apr	-	-	
123-124	I	Mountain Gem	Skone and Connors	Skyline Farms	ID	25-Apr	7	-	
123-124	II	Norkotah 296	Skone and Connors	Arnold	ID	25-Apr	-	-	
123-124	III	Burbank	Skone and Connors	SHB	WA	25-Apr	-	-	
125-126	I	Dark Red Norland	WHB	SHB	WA	4-May	-	-	
125-126	II	Clearwater	WHB	Jorgensen	ID	4-May	-	-	
125-126	III	Burbank	WHB	Cottom	MT	4-May	-	-	
127-128	I	Burbank	WHB	SHB	WA	4-May	1	-	
127-128	II	Burbank	WHB	Lake Farms	MT	4-May	-	-	
127-128	III	Burbank	WHB	Schutter	MT	4-May	-	-	
129-130	I	Burbank	WHB	Streich	MT	4-May	-	-	
129-130	II	Umatilla	WHB	Not listed	CAN-AB	4-May	1	-	
131-132	I	Harmony	Smith/Morrison	Ebe Farms	WA	4-May	-	-	
131-132	II	Umatilla	WHB	Schutter	MT	4-May	6	-	

* Tier I = North, II/III = Middle, IV = South

	Tier*	2023 Washington State Commercial Seed Lot Trial				Planting	Mosaic	Blackleg	Comments and/or Other Flags
Row	N/M/S	Variety	Seed Receiver	Seed Grower	Source	Date	Yellow Flag	Red Flag	
133-134	I	Columba	Smith/Morrison	Norbest	CAN-AB	4-May	-	-	
133-134	II	Alturas	Kehl Farms	Starkel	MT	9-May	23	-	
135-136	I	Burbank	Kehl Farms	NPS	CAN-AB	9-May	-	-	
135-136	II	Alturas	Kehl Farms	Telford	ID	9-May	-	-	
137-138	II	Clearwater	Kehl Farms	Telford	ID	9-May	1	-	
139-140	II	Clearwater	Kehl Farms	Gallatin Valley	MT	9-May	-	-	
141-142	II	Clearwater	Kehl Farms	Telford	ID	9-May	-	-	
143-144	II	Clearwater	Kehl Farms	Starkel	MT	9-May	-	-	
145-146	II	Clearwater	Kehl Farms	Tobol Farms	MT	9-May	-	-	
147-148	II	Clearwater	Kehl Farms	Starkel	MT	9-May	2	-	
149-150	II	Ranger	Kehl Farms	Starkel	MT	9-May	10	-	
151-152	II	Umatilla	Kehl Farms	Tobol Farms	MT	9-May	13	-	
153-154	I	No Tag	Weber Farms	Not provided	Not provided	9-May	44	-	
153-154	II	Umatilla	Kehl Farms	SHB	WA	9-May	4	-	
155-156	I	No Tag	Weber Farms	Not provided	Not provided	9-May	-	-	
157-158	I	FL 1867	Kehl Farms	Western	NA	9-May	-	-	
159-160	I	Burbank	Kehl Farms	Macy Farms	OR	9-May	-	-	
161-162	I	Burbank	Kehl Farms	SHB	WA	9-May	6	-	5 - Chem
163-164	I	Burbank	Kehl Farms	Lake Farms	MT	9-May	-	-	
165-166	I	Burbank	Saddle View Farms	Lake, Dan	MT	9-May	-	-	
167-168	I	Not provided	Saddle View Farms	Skinner Farms	MT	9-May	-	-	

* Tier I = North, II/III = Middle, IV = South

2023 Washington State Commercial Seed Lot Trial

Appendix A

Sorted by Seed Receiver

Row	Tier I-IV	Seed Receiver
43-44	I	100 Circles
43-44	II	100 Circles
43-44	III	100 Circles
43-44	IV	100 Circles
45-46	I	100 Circles
45-46	II	100 Circles
45-46	III	100 Circles
45-46	IV	100 Circles
47-48	I	100 Circles
47-48	II	100 Circles
47-48	III	100 Circles
47-48	IV	100 Circles
49-50	I	100 Circles
49-50	II	100 Circles
49-50	III	100 Circles
49-50	IV	100 Circles
51-52	I	100 Circles
51-52	II	100 Circles
51-52	III	100 Circles
51-52	IV	100 Circles
53-54	I	100 Circles
53-54	II	100 Circles
53-54	III	100 Circles
67-68	I	100 Circles
67-68	II	100 Circles
67-68	III	100 Circles
69-70	I	100 Circles
69-70	II	100 Circles
69-70	III	100 Circles
69-70	IV	100 Circles
71-72	I	100 Circles
71-72	II	100 Circles
71-72	III	100 Circles
71-72	IV	100 Circles
73-74	I	100 Circles
73-74	II	100 Circles
73-74	III	100 Circles
73-74	IV	100 Circles
75-76	II	100 Circles
75-76	III	100 Circles
75-76	IV	100 Circles
3-4	III	AgriNW
21-22	I	AgriNW
63-64	III	AgriNW
63-64	IV	AgriNW

Row	Tier I-IV	Seed Receiver
1-2	IV	AgriNW - Boardman
3-4	I	AgriNW - Boardman
3-4	II	AgriNW - Boardman
3-4	IV	AgriNW - Boardman
7-8	I	AgriNW - Boardman
9-10	IV	AgriNW - Boardman
57-58	I	AgriNW - Boardman
57-58	IV	AgriNW - Boardman
61-62	I	AgriNW - Boardman
61-62	IV	AgriNW - Boardman
81-82	I	AgriNW - Boardman
81-82	II	AgriNW - Boardman
5-6	III	AgriNW - Eureka
7-8	III	AgriNW - Eureka
9-10	II	AgriNW - Eureka
11-12	I	AgriNW - Eureka
11-12	II	AgriNW - Eureka
13-14	I	AgriNW - Eureka
13-14	II	AgriNW - Eureka
13-14	III	AgriNW - Eureka
13-14	IV	AgriNW - Eureka
1-2	I	AgriNW - McNary
1-2	II	AgriNW - McNary
5-6	I	AgriNW - McNary
5-6	II	AgriNW - McNary
7-8	IV	AgriNW - McNary
9-10	I	AgriNW - McNary
9-10	III	AgriNW - McNary
57-58	III	AgriNW - McNary
59-60	IV	AgriNW - McNary
61-62	II	AgriNW - McNary
81-82	III	AgriNW - McNary
83-84	II	AgriNW - McNary
83-84	III	AgriNW - McNary
1-2	III	AgriNW - River View
5-6	IV	AgriNW - River View
7-8	II	AgriNW - River View
11-12	III	AgriNW - River View
11-12	IV	AgriNW - River View
57-58	II	AgriNW - River View
59-60	I	AgriNW - River View
59-60	II	AgriNW - River View
59-60	III	AgriNW - River View
61-62	III	AgriNW - River View
83-84	I	AgriNW - River View

2023 Washington State Commercial Seed Lot Trial

Appendix A

Sorted by Seed Receiver

Row	Tier I-IV	Seed Receiver
85-86	I	AgriNW - River View
15-16	I	Elite Seed
17-18	I	Elite Seed
17-18	II	Elite Seed
17-18	III	Elite Seed
17-18	IV	Elite Seed
19-20	I	Elite Seed
19-20	II	Elite Seed
19-20	III	Elite Seed
19-20	IV	Elite Seed
21-22	II	Elite Seed
21-22	III	Elite Seed
21-22	IV	Elite Seed
23-24	I	Elite Seed
23-24	II	Elite Seed
23-24	III	Elite Seed
23-24	IV	Elite Seed
25-26	I	Elite Seed
25-26	II	Elite Seed
25-26	III	Elite Seed
25-26	IV	Elite Seed
27-28	I	Elite Seed
27-28	II	Elite Seed
27-28	III	Elite Seed
27-28	IV	Elite Seed
29-30	I	Elite Seed
29-30	II	Elite Seed
29-30	III	Elite Seed
29-30	IV	Elite Seed
31-32	I	Elite Seed
31-32	II	Elite Seed
31-32	III	Elite Seed
31-32	IV	Elite Seed
53-54	IV	Elite Seed
55-56	I	Elite Seed
55-56	II	Elite Seed
55-56	III	Elite Seed
55-56	IV	Elite Seed
75-76	I	Elite Seed
77-78	I	Elite Seed
77-78	II	Elite Seed
77-78	III	Elite Seed
79-80	I	Elite Seed
79-80	II	Elite Seed
79-80	III	Elite Seed

Row	Tier I-IV	Seed Receiver
63-64	I	Friehe Farms
63-64	II	Friehe Farms
65-66	I	Friehe Farms
65-66	II	Friehe Farms
119-120	I	Friehe Farms
121-122	I	Friehe Farms
65-66	III	Integrity Ag
65-66	IV	Integrity Ag
67-68	IV	Integrity Ag
117-118	III	Integrity Ag
119-120	II	Integrity Ag
119-120	III	Integrity Ag
95-96	I	Kehl Farms
95-96	II	Kehl Farms
95-96	III	Kehl Farms
97-98	I	Kehl Farms
97-98	II	Kehl Farms
97-98	III	Kehl Farms
99-100	I	Kehl Farms
99-100	II	Kehl Farms
99-100	III	Kehl Farms
101-102	I	Kehl Farms
101-102	II	Kehl Farms
101-102	III	Kehl Farms
103-104	II	Kehl Farms
103-104	III	Kehl Farms
133-134	II	Kehl Farms
135-136	I	Kehl Farms
135-136	II	Kehl Farms
137-138	II	Kehl Farms
139-140	II	Kehl Farms
141-142	II	Kehl Farms
143-144	II	Kehl Farms
145-146	II	Kehl Farms
147-148	II	Kehl Farms
149-150	II	Kehl Farms
151-152	II	Kehl Farms
153-154	II	Kehl Farms
157-158	I	Kehl Farms
159-160	I	Kehl Farms
161-162	I	Kehl Farms
163-164	I	Kehl Farms
117-118	I	Saddle View Farms
117-118	II	Saddle View Farms
165-166	I	Saddle View Farms

Appendix A

Sorted by Seed Receiver

Row	Tier I-IV	Seed Receiver
167-168	I	Saddle View Farms
33-34	I	Skone and Connors
33-34	II	Skone and Connors
33-34	III	Skone and Connors
33-34	IV	Skone and Connors
35-36	I	Skone and Connors
35-36	II	Skone and Connors
35-36	III	Skone and Connors
35-36	IV	Skone and Connors
37-38	I	Skone and Connors
37-38	II	Skone and Connors
37-38	III	Skone and Connors
37-38	IV	Skone and Connors
39-40	I	Skone and Connors
39-40	II	Skone and Connors
39-40	III	Skone and Connors
39-40	IV	Skone and Connors
41-42	I	Skone and Connors
41-42	II	Skone and Connors
41-42	III	Skone and Connors
41-42	IV	Skone and Connors
121-122	II	Skone and Connors
121-122	III	Skone and Connors
123-124	I	Skone and Connors
123-124	II	Skone and Connors
123-124	III	Skone and Connors
85-86	II	Smith/Morrison
85-86	III	Smith/Morrison
87-88	I	Smith/Morrison
87-88	II	Smith/Morrison
87-88	III	Smith/Morrison
89-90	I	Smith/Morrison
89-90	II	Smith/Morrison
89-90	III	Smith/Morrison
91-92	I	Smith/Morrison
91-92	II	Smith/Morrison
91-92	III	Smith/Morrison
93-94	I	Smith/Morrison
93-94	II	Smith/Morrison
93-94	III	Smith/Morrison
131-132	I	Smith/Morrison
133-134	I	Smith/Morrison
109-110	III	TMCF
111-112	I	TMCF
111-112	II	TMCF

[illegible]

2023 Washington State Commercial Seed Lot Trial

Appendix B

Sorted by Seed Grower

Row	Tier I-IV	Seed Grower
1-2	II	Arcadia
95-96	II	Arcadia
19-20	II	Arnold
25-26	I	Arnold
29-30	IV	Arnold
31-32	III	Arnold
123-124	II	Arnold
37-38	III	Bedlington
53-54	I	Belly River
9-10	IV	Beutler
39-40	I	Beutler
41-42	II	Beutler
43-44	II	Beutler
75-76	IV	Beutler
5-6	I	Beutler
3-4	IV	Beutler, Wes
7-8	III	Big Sky Seed
13-14	III	Big Sky Seed
101-102	I	Brown Farms
61-62	IV	Buyan, Bill
83-84	III	Buyan, Bill
121-122	I	Buyan, Bill
15-16	I	Cal-Ore
27-28	III	Cal-Ore
39-40	II	Cal-Ore
41-42	I	Cal-Ore
91-92	III	Cal-Ore
121-122	III	Cal-Ore
89-90	I	Cascade Farms
9-10	I	Coles Corner
23-24	II	Cottom
35-36	II	Cottom
35-36	III	Cottom
35-36	IV	Cottom
39-40	IV	Cottom
41-42	IV	Cottom
49-50	IV	Cottom
79-80	III	Cottom
107-108	I	Cottom
121-122	II	Cottom
125-126	III	Cottom
95-96	III	Countrywide
101-102	II	Countrywide
45-46	I	Crapo
69-70	II	Crapo

Row	Tier I-IV	Seed Grower
75-76	III	CSS - Boardman
75-76	II	CSS - Holbrook
109-110	I	CSS - Holbrook
113-114	III	CSS Farms
17-18	II	Droge
53-54	IV	Droge
71-72	IV	Droge
59-60	I	Dykema
59-60	III	Dykema
71-72	I	Dykema
83-84	I	Dykema
85-86	III	Ebe Farms
89-90	II	Ebe Farms
89-90	III	Ebe Farms
91-92	I	Ebe Farms
93-94	II	Ebe Farms
131-132	I	Ebe Farms
39-40	III	Fleming Farms
27-28	I	Foster
27-28	II	Foster
29-30	I	Foster
43-44	III	Foster
45-46	III	Foster
47-48	I	Foster
69-70	IV	Foster
77-78	III	Foster
79-80	II	Foster
97-98	III	Foster
13-14	I	Foth Farms
17-18	III	Foth Farms
23-24	III	Foth Farms
29-30	III	Foth Farms
33-34	I	Foth Farms
33-34	IV	Foth Farms
37-38	I	Foth Farms
37-38	IV	Foth Farms
51-52	IV	Foth Farms
53-54	II	Foth Farms
77-78	II	Foth Farms
101-102	III	Foth Farms
111-112	III	Foth Farms
7-8	IV	Foth, Matt
61-62	III	Foth, Matt
19-20	III	Gallatin Valley
57-58	I	Gallatin Valley

2023 Washington State Commercial Seed Lot Trial

Appendix B

Sorted by Seed Grower

Row	Tier I-IV	Seed Grower
57-58	II	Gallatin Valley
95-96	I	Gallatin Valley
139-140	II	Gallatin Valley
47-48	IV	Gem Valley
55-56	IV	Gem Valley
69-70	III	Gibbs
73-74	I	Gibbs
99-100	III	Gibbs
25-26	IV	Gilbert
45-46	II	Gilbert
47-48	II	Gilbert
51-52	I	Gilbert
67-68	I	Gilbert
5-6	III	Groot Farms
11-12	II	Groot Farms
9-10	II	Haarsma
11-12	I	Haarsma
13-14	II	Haarsma
63-64	I	Haarsma
11-12	III	Hensley
91-92	II	John Miller Farms
31-32	II	Jorde
21-22	IV	Jorgensen
25-26	II	Jorgensen
55-56	I	Jorgensen
109-110	II	Jorgensen
125-126	II	Jorgensen
31-32	IV	Kamp
51-52	III	Kandler Farms
73-74	III	Kandler Farms
93-94	I	Karren Farms
3-4	III	Kimm Bros
11-12	IV	Kimm Bros
21-22	II	Kimm Bros
43-44	IV	Kimm Bros
49-50	II	Kimm Bros
73-74	II	Kimm Bros
5-6	II	Kimm, Bill
61-62	II	Kimm, Bill
83-84	II	Kimm, Bill
81-82	III	Kimm, Martin
93-94	III	Kroeker Farms
25-26	III	Lajoie Farms
17-18	IV	Lake Farms
21-22	III	Lake Farms

Row	Tier I-IV	Seed Grower
107-108	II	Lake Farms
127-128	II	Lake Farms
163-164	I	Lake Farms
51-52	II	Lake, Dan
165-166	I	Lake, Dan
23-24	IV	Lake, Jack
29-30	II	Lake, Jack
15-16	II	Macy Farms
15-16	III	Macy Farms
15-16	IV	Macy Farms
99-100	I	Macy Farms
113-114	I	Macy Farms
115-116	II	Macy Farms
159-160	I	Macy Farms
53-54	III	Maine Farms
49-50	III	Neibaur
67-68	II	Neibaur
21-22	I	No tag
63-64	III	No tag
63-64	IV	No tag
133-134	I	Norbest
129-130	II	Not listed
3-4	II	Not provided
63-64	II	Not provided
153-154	I	Not provided
155-156	I	Not provided
135-136	I	NPS
87-88	I	Pacific Potato
85-86	II	Parkland
87-88	II	Pieper Farms
87-88	III	Pieper Farms
31-32	I	RDO
49-50	I	Ricks
67-68	III	Ricks
69-70	I	Ricks
1-2	I	Schutter
1-2	IV	Schutter
7-8	I	Schutter
57-58	IV	Schutter
65-66	I	Schutter
65-66	II	Schutter
67-68	IV	Schutter
71-72	III	Schutter
77-78	I	Schutter
85-86	I	Schutter

Appendix B

Row	Tier I-IV	Seed Grower
97-98	I	Schutter
103-104	II	Schutter
105-106	II	Schutter
115-116	I	Schutter
117-118	III	Schutter
119-120	I	Schutter
127-128	III	Schutter
131-132	II	Schutter
9-10	III	Schutter, Nick
57-58	III	Schutter, Nick
19-20	I	SHB
37-38	II	SHB
65-66	IV	SHB
103-104	I	SHB
103-104	III	SHB
107-108	III	SHB
117-118	I	SHB
117-118	II	SHB
123-124	III	SHB
125-126	I	SHB
127-128	I	SHB
153-154	II	SHB
161-162	I	SHB
17-18	I	Silver Creek
167-168	I	Skinner Farms
123-124	I	Skyline Farms
5-6	IV	Spring Creek
7-8	II	Spring Creek
55-56	II	Spring Creek
59-60	IV	Spring Creek
65-66	III	Spring Creek
75-76	I	Spring Creek
79-80	I	Spring Creek
23-24	I	Starkel
27-28	IV	Starkel
33-34	II	Starkel
33-34	III	Starkel
35-36	I	Starkel
45-46	IV	Starkel
47-48	III	Starkel
55-56	III	Starkel
133-134	II	Starkel
143-144	II	Starkel
147-148	II	Starkel
149-150	II	Starkel

[illegible]