

POTATO VARIETY AND CLONE DESCRIPTIONS

2005 Growing Season

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FRESH MARKET OR PROCESSING VARIETIES

Named Varieties

GemStar Russet (A9014-2) – A medium maturing, high yielding selection with heavy russet skin and oblong tuber type. It resulted from a cross of Gem Russet and A8341-5. It has excellent appearance and may be useful for both processing and fresh market. GemStar has moderate to high specific gravity and good fry color from 40° F storage. Strengths: drought tolerant, high yield, outstanding appearance, exceptionally high percentage of U.S. No.1 tubers, resistance to external defects, blackspot bruise and corky ringspot, and excellent fry color from cold storage. Weaknesses: Susceptibility to hollow heart, PVY, and dry rot.

Ranger Russet – A medium to late maturing, medium to high yielding variety with medium russet skin, and long tuber type that is similar in appearance to Russet Burbank. It resulted from a cross of Butte and A6595-3. It is useful for processing market and is the third most widely grown variety in the U.S. Ranger has medium to high specific gravity and good fry color from 45°F storage. Strengths: resistance to internal defects including hollow heart, brown center, and net necrosis, high yield of large tubers, resistance to early dying, PVX and PVY. Weaknesses: susceptibility to scab, tendency for deep eyes, susceptibility to stress induced malformities, blackspot bruise, and late blight tuber rot.

Russet Burbank – This well-known variety serves as a standard for all russet-type variety trials. Russet Burbank is late maturing, medium to high yielding with medium russet skin and long tuber type. It is useful for fresh market and processing. Russet Burbank has medium specific gravity and usually fries well from 45°F storage. Strengths: storability, medium to high yields, culinary quality. Weaknesses: susceptibility to stress induced malformations, hollow heart, brown center, and sugar ends, susceptibility to net necrosis, early dying and abundance of undersize tubers.

Russet Norkotah – A very early maturing, low to medium yielding variety with medium russet skin and long tuber type. It resulted from a cross of ND9526-4Russ and ND9687-5Russ. It is useful for fresh market. Russet Norkotah has low specific gravity and fries moderately poor from 45°F storage. Strengths: early maturity, attractive appearance, uniform shape. Weaknesses: low specific gravity, sugar accumulation during storage, common occurrence of very low yields due to high susceptibility to early dying, occasional disagreeable flavor.

Western Russet (A7961-1) – A medium maturing, medium to high yielding selection with heavy russet skin and long tuber type. It resulted from a cross of A68113-4 and Belrus. It produces a high proportion of U.S. No. 1 tubers, has medium specific gravity and may be useful for fresh and processing markets. Western is susceptible to blackspot bruise. Strengths: resistance to malformations, internal defects and shatter bruise. Weaknesses: Sugar accumulation in storage causing occasional dark fries, susceptibility to blackspot bruise.

Fresh Market or Processing: Experimental Selections

The following selections are being evaluated for quality, yield, and disease resistance under Idaho growing conditions. Selections having superior characteristics will be evaluated further.

A92030-5 – A medium maturing, medium to high yielding selection with large long, heavily russetted tubers. It resulted from a cross of A86003-20 and A83043-12 and may be useful for tablestock and processing. A92030-5 has moderate specific gravity and acceptable fry color from 45° F storage. Selected at Parma for its good tuber type characteristics under stressful conditions. Strengths: corky ringspot resistance and large blocky tubers at some locations. Weaknesses: low tuber set, susceptibility to blackspot bruise, and early dying.

A92294-6 – A medium to late maturing, very high yielding selection with long, white tubers. It resulted from a cross of A86332-7 and Summit Russet. It has high specific gravity and excellent fry color from storage. A92294-6 has a high tuber set and may be useful for processing. Strengths: very high yield, excellent fry color from storage. Weaknesses: susceptibility to growth cracks, scab, tendency for curved tubers, potential for sugar end development.

A93004-3 – A late maturing, medium to high yielding selection with very long, heavily russetted tubers. It resulted from a cross of A83043-12 and A7961-1. A93004-3 produces a high yield of large tubers, has moderate specific gravity and good fry color from storage. It has potential for processing and fresh markets. Strengths: high percentage of U.S. No. 1 tubers, good fry color from storage. Weaknesses: tendency for over-sized tubers, moderate susceptibility to blackspot bruise, susceptibility to skin checking, “lumpy” tuber appearance.

A93157-6LS – A medium to late maturing, high yielding selection with long, russetted tubers. It resulted from a cross of A87149-4 and A88108-7. A93157-6LS has high specific gravity, excellent fry color from cold storage and was originally selected for its resistance to sugar development. It should be useful in both tablestock and processing markets. Strengths: very high proportion of U.S. No. 1 tubers, good tuber appearance, high specific gravity, excellent fry color, high yield, and PVY resistance. Weaknesses: susceptibility to blackspot bruise, some hollow heart.

A95109-1 – An early maturing selection with medium to high yield and long, heavily russetted tubers. It resulted from a cross of A8893-1 and Summit Russet. A95109-1 has

specific gravity similar to Russet Burbank and can produce dark fries out of 45° F storage. It produces tubers with a smooth appearance and may be suitable for both the fresh and early processing markets. Strengths: good early yield, high proportion of U.S. No.1 tubers, smooth appearance. Weaknesses: mediocre specific gravity, potential for dark fries out of 45° F storage.

A95409-1 – A medium to late maturing selection with high yield and long, lightly russetted tubers. It resulted from a cross of A89146-8 and Ranger Russet. A95409-1 is high yielding, produces a very high proportion of large U.S. No.1 tubers with high specific gravity. It produces acceptable fry color out of storage and may be useful for the fresh and processing markets. Strengths: high yield and high proportion of U.S. No.1 tubers, blocky tuber type. Weaknesses: light skin may be unattractive for fresh market, mediocre fry color.

A96023-6 – A medium maturing selection with mediocre yield and long, medium russetted tubers. It resulted from a cross of A9045-7 and A89512-3. A96023-6 has good early yields, produces a very high proportion of large U.S. No.1 tubers. It produces acceptable fry color out of storage and may be useful for the fresh and processing markets. Strengths: high proportion of U.S. No.1 tubers, long tuber type. Weaknesses: mediocre specific gravity.

A96095-3 – An early maturing selection with medium yield and long, medium russetted large tubers. It resulted from a cross of A88094-8 and A91194-4. A96095-3 has specific gravity lower than Russet Burbank and can produce light fries out of 40 and 45° F storage. It produces a high proportion of large tubers that are sometimes “lumpy” with bulging eyes. Strengths: good early yield, high proportion of U.S. No.1 tubers. Weaknesses: mediocre specific gravity, potential for blackspot bruising, internal brown spot.

A96104-2 – A medium maturing selection with high yield and long, medium russetted tubers. It resulted from a cross of A88236-4 and A89512-3. A96104-2 is high yielding, produces a very high proportion of large U.S. No.1 tubers. It produces acceptable fry color out of storage and may be useful for the fresh and processing markets. Strengths: high proportion of U.S. No.1 tubers, potential resistance to blackspot bruise and common scab. Weaknesses: occasional hollow heart.

A96108-12 – A medium to early maturing selection, with medium high yield, and oblong, light russetted tubers. It resulted from a cross of A8935-3 and Summit Russet. A96108-12 has medium specific gravity with marginal fry color. Strengths: good yield. Weaknesses: below average performance for fresh and process use.

A97142-3 – This selection resulted from a cross of A7816-14 and GemStar. This selection was rouged from the trial due to PVY susceptibility.

A97229-1 – An early to medium maturing selection, with below average yield, and oblong, heavy russetted tubers. It is a cross of A90609-6 and A92001-2. A97229-1 has

mediocre fry color and low specific gravity. Strengths: high percentage of U.S. No.1 tubers. Weaknesses: low specific gravity, yield and processing potential.

A97287-6 – A medium maturing selection, with above average yield, and long, medium russetted tubers. It resulted from a cross of A92030-4 and GemStar. A97287-6 has slightly above average specific gravity and excellent fry color. Strengths: high yield, high merit score for fresh and process potential. Weaknesses: none noted.

A98104-4 – An early maturing selection, with low yield, and oval, light russetted tubers. It resulted from a cross of A7816-14 and A93137-1. A98101-4 has a low percentage of U.S. No.1 tubers, low specific gravity and good fry color. Strengths: good fry color. Weaknesses: low yield, small tuber size.

AO96141-3 – An early maturing selection, with high yield, and long, russetted tubers. It resulted from a cross of A89222-3 and COA90064-6. AO96141-3 has high specific gravity and good fry color. Strengths: high yield, high specific gravity. Weaknesses: occasional hollow heart.

AO96160-3 – A medium to late maturing selection from Oregon with medium yields and long, medium heavy russetted tubers. It resulted from a cross of A89384-10 and A89512-3. AO96160-3 has good specific gravity, good fry color, and attractive tuber type. It may be useful in fresh and processing markets. Strengths: good fry color from storage, attractive tuber type, and high proportion of U.S. No.1 tubers. Weaknesses: mediocre yield and specific gravity.

AO96164-1 – A medium maturing, high yielding selection from Oregon with long, medium russetted tubers. It resulted from a cross of A89384-10 and A91194-4. AO96164-1 has specific gravity equal to Russet Burbank and good fry color out of storage and has potential for use in fresh and processing markets. Strengths: high yield and proportion of U.S. No.1 tubers, good fry color out of storage. Weaknesses: susceptibility to pointy tubers, slight susceptibility to shatter bruise.

AO98133-2 – A medium to early maturing selection with low yield, and oblong russetted tubers. It resulted from a cross of A8670-7 and GemStar. This selection has a high specific gravity and good fry color. Strengths: high proportion of U.S. No. 1 tubers, high specific gravity, and fry color. Weaknesses: large tuber size and low tuber set.

AOA95154-1 – A late maturing selection with medium yield and long russetted tubers. It resulted from a cross of Bannock Russet and A89152-4. AOA95154-1 has high specific gravity and very good fry color from storage and has potential for use in fresh and processing markets. Strengths: high specific gravity, good fry color from storage, resistance to external malformations and translucent ends. Weaknesses: tuber internal necrosis noted as a problem in Southern Columbia Basin.

AOA95155-7 – A late maturing selection with short, medium russetted tubers. It resulted from a cross of Bannock Russet and A89163-3LS. AOA95155-7 is slightly lower yielding than Russet Burbank, but has higher specific gravity and good fry color from storage. It has some resistance to blackspot bruising and has potential for use in the fresh

and processing markets. Strengths: good fry color from storage, good tuber shape, and resistance to blackspot bruising. Weaknesses: mediocre yield.

ATX91137-1RU – An early to medium maturing selection from Texas with oblong, medium russetted tubers. It resulted from a cross of Bannock Russet and A8343-12. ATX91137-1Ru is slightly lower yielding than Russet Burbank, but has lower specific gravity. It has some resistance to blackspot bruising and has potential for use in the fresh market. Strengths: resistance to blackspot bruising. Weaknesses: low specific gravity, mediocre yield, high proportion of undersized tubers.

CO94035-15RU – A medium maturing selection from Colorado with oblong, medium heavy russetted tubers. It resulted from a cross of AO80432-1 and Silverton Russet. CO94035-15 has mediocre yield with a high proportion of U.S. No. 1 tubers. It has low specific gravity and acceptable fry color from storage. Strengths: resistance to blackspot bruising. Weaknesses: short tuber type.

CO95086-8RU – An early maturing, low yielding, oblong, russetted selection from Colorado. It resulted from a cross of CO87009-4 and Silverton Russet. It has acceptable specific gravity, good fry color from storage. Strengths: good fry color. Weaknesses: low yield and susceptible to metribuzin.

CO95172-3RU – A medium maturing, high yielding selection from Colorado with oblong, medium russetted tubers. It resulted from a cross of Russet Nugget and AC88165-3. CO95172-3RU has good specific gravity and acceptable fry color from storage. Strengths: high yield and high proportion of U.S. No.1 tubers, light fry color. Weaknesses: potential blackspot bruise susceptibility.

MWTX2609-2RU – A medium maturing, high yielding selection from Texas with long, light russetted tubers. This selection is a result from a cross of Russet Burbank and OntarioX4xhybrid. MWTX2609-2RU has mediocre specific gravity and poor fry color. Strengths: high yield and high percentage of U.S. No.1 tubers. Weaknesses: darker fry color, susceptibility to blackspot bruise, and curved off-type tubers.

PA97B3-2 – A medium maturing, mediocre yielding selection from Prosser, WA with oblong, light russetted tubers. It resulted from a cross of A8469-5 and A77715-6. PA97B3-2 was developed for its resistance to corky ringspot. It has high specific gravity and excellent fry color from storage. Strengths: resistance to corky ringspot. Weaknesses: short tuber type, lower yield.

TXA549-1RU – A medium to early maturing, medium-high yielding selection from Texas with blocky, russetted tubers. It resulted from a cross of ND9687-23RU and ND9567-2RU. TXA549-1RU has good specific gravity. Strengths: good yield and fry color. Weaknesses: susceptibility to blackspot bruise.

CHIPPING VARIETIES

Named Varieties

Atlantic – A medium maturing, high yielding variety with buff skin and round tuber type. It resulted from a cross of Wauseon and B5141-6. It is used widely as a field delivery chipping variety in the eastern U.S. and elsewhere. Atlantic has high specific gravity and chips well from 50°F storage. Strengths: high yields, high specific gravity, low sugar buildup in storage. Weaknesses: susceptibility to hollow heart, heat necrosis, shatter bruise and storage rots.

Chipeta – A late maturing, high yielding variety with buff skin and round tuber type. Chipeta can have very large tubers. It resulted from a cross of WNC612-13 and Wischip. It has high specific gravity and low sugar accumulation in storage. It will occasionally chip out of 45°F storage. Strengths: high yield, low sugar buildup in storage, low incidence of internal problems, resistance to most field diseases. Weaknesses: irregular shape, large size.

Ivory Crisp - A medium maturing, medium to high yielding selection from Oregon with white skin and round tuber type. It resulted from a cross of ND292-1 and A77268-4. It is a potential early chipping selection due to good early yields and high specific gravity. Ivory Crisp has good cold chipping potential. Strengths: ability to chip from 45°F storage, appearance, low incidence of internal problems, high specific gravity, good reconditioning capability following cold storage. Weaknesses: susceptibility to shatter bruise.

Chipping: Experimental Selections

A91814-5 – A medium maturing, high yielding selection with oblong white tubers. It resulted from a cross of NDA2031-2 and Ivory Crisp. A91814-5 has high specific gravity and produces good chip color out of storage. A91814-5 was selected primarily to serve the processing-dehydration industry, but may serve the frozen processing and chip industries as well. Strengths: exceptionally high yield, good internal quality, excellent fry color out of storage, high specific gravity. Weakness: scab susceptibility.

B0766-3 – An early maturing, medium yielding selection from the U.S.DA-ARS in Maryland with white, netted, oval tubers. It resulted from a cross of B0243-18 and Coastal Chip. B0766-3 has high specific gravity and produces average chip color from storage. Strengths: good specific gravity, reconditioning ability. Weaknesses: deep bud ends, susceptibility to hollow heart.

CO95051-7W – A medium maturing, medium yielding selection from Colorado with oval white tubers. It resulted from a cross of AC88456-6W and BC0894-2. CO95051-7W has high specific gravity and produces excellent chip color out of storage. Strengths: good internal quality, excellent fry color out of storage, high protein content, resistance to tuber late blight. Weaknesses: mediocre yields.

CO96141-4W – An early maturing, low yielding selection from Colorado with oval, white tubers. This selection is a cross from BC0894-2 and AC87340-2. Specific gravity is low for a chip processing and chip color is darker than desirable. Strengths: few growth defects, resistance to corky ringspot. Weaknesses: low yield.

COA96141-2C – A medium maturing, medium to high yielding selection with round white tubers. It resulted from a cross of BC0894-2 and AC3340-2. COA96141-2C has low specific gravity and produces excellent chip color out of storage. Strengths: good internal quality, excellent fry color out of storage. Weaknesses: low specific gravity, susceptible to common scab.

COA96142-3C – A medium maturing, mediocre yielding selection with round, white tubers. It resulted from a cross of BC0894-2 and Ivory Crisp. COA96142-3C has medium-high specific gravity and lower yields than Atlantic. It produces poor chip color from storage. Strengths: high specific gravity. Weaknesses: low yield, poor chip color, internal defects, and shatter bruise potential.

SPECIALTY VARIETIES

Named Varieties

All Blue – A very late maturing, medium to high yielding variety with deep purple skin and flesh. The parentage of this variety is unknown. ‘All Blue’ produces medium to small sized tubers that maintain color after cooking. In short season areas, tuber size can be quite small. Specific gravity is higher than most red varieties. Strengths: attractive deep blue skin and flesh, high yield in long season areas. Weaknesses: very late maturity can lead to low yields and small tuber size.

Dark Red Norland – A very early maturing, medium yielding variety with round to oblong shape and dark red skin. It resulted from a cross of Redkote and ND626. It has good eating quality and low specific gravity. Strengths: good combination of early maturity and yield, good eating quality, wide adaptation. Weaknesses: prone to uneven skin color (pinto) and russetting and short tuber dormancy, susceptibility to early dying, scab and growth cracks.

Red LaSoda – A light red mutant of LaSoda developed by the Louisiana potato breeding program. It resulted from a cross of Triumph and Katahdin. ‘Red LaSoda’ is very high yielding and produces red tubers that are round to oblong with white flesh. Specific gravity is low and red color tends to fade in storage. Strengths: high yield, early size potential. Weaknesses: off-shape tubers, deep eyes and susceptibility to scab.

Yukon Gold – A medium yielding, medium maturing variety with oval, white tuber type with yellow flesh. It resulted from a cross of W5279-4 and Norgleam. It is intended primarily for the fresh market and has short dormancy. Strengths: good appearance and good yield, resistance to PVA. Weaknesses: short dormancy, mediocre yields.

Specialty: Experimental Selections

A95074-6 – A medium to late maturing selection with medium yield and long, lightly russeted tubers with yellow flesh. It resulted from a cross of Agria and Summit Russet. A95074-6 has medium specific gravity and good fry color from cold storage and may be useful for both the fresh and processing markets. Strengths: good fry color from storage and attractive yellow flesh. Weaknesses: tubers sometimes have unattractive appearance, occasional hollow heart.

A96741-1R – A medium maturing round dark red selection. It resulted from a cross of IdaRose and Mazama. A96741-1R has high yield and good dark red color. It has specific gravity similar to Red LaSoda and good tuber appearance. Strengths: nice tuber appearance, dark red color. Weaknesses: tendency to shatter bruise.

A96741-2R – A medium maturing round red selection. It resulted from a cross of IdaRose and Mazama. A96741-2R has average yield and good red color. It has low specific gravity similar to Dark Red Norland and good tuber appearance. Strengths: nice tuber appearance, small tuber size. Weaknesses: tendency to shatter bruise.

BTX1544-2W/Y – A medium maturing selection from Texas with oval white tubers. It resulted from a cross of B0811-13 and Yukon Gold. BTX1544-2W/Y has higher yields than Yukon Gold and a very high proportion of U.S. No.1 tubers. Strengths: high proportion of U.S. No.1 tubers. Weaknesses: susceptibility to hollow heart and brown center.

CO94165-3P/P – An early maturing selection from Colorado with dark purple skin and flesh. It resulted from a cross of ND2008-2 and All Blue. CO94165-3P/P is high yielding, but produces a large proportion of undersized tubers. It produces tubers with a very attractive deep purple skin and uniformly deep purple flesh. Strengths: uniformly deep purple skin and flesh, high yield. Weaknesses: skin bronzing and irregular tuber shape.

CO94183-1R/R – A medium maturing selection from Colorado with oval, red tubers with light pink flesh. It resulted from a cross of All Red and ND2109-7. CO94183-1R/R produces yields lower than the commercially available red varieties. Strengths: good red skin color. Weaknesses: low yield, potential for shatter bruise.

NDA5507-3Y – Originated as a seedling in North Dakota and was selected in the field at Aberdeen. This round, pink-eyed, yellow-fleshed selection holds promise as a specialty variety. It resulted from a cross of Brodick and Yukon Gold. NDA5507-3Y has early to medium maturity and also has the PVY resistance of its Scottish parent, Brodick. Tuber uniformity and type also are very good. Strengths: attractive pink eyes, good tuber conformity, PVY resistance, and tuber late blight resistance. Weaknesses: low specific gravity, poor chip color from storage.

NY126 – A medium late maturing selection from New York with round, scaly buff tubers. It resulted from a cross of Keuka Gold and Pike. NY126 has mediocre yields and

high specific gravity. Strengths: nice tuber appearance. Weaknesses: susceptibility to hollow heart and brown center.

PA99P20-2 – A medium maturing selection from Prosser, Washington with oblong, red tubers with red flesh. It resulted from a cross of N40-1 and PA96RR1-220. PA99P20-2 produces good yields and low specific gravity. Strengths: good yield, high Vitamin C content. Weaknesses: poor tuber shape.

POR01PG20-12 – A medium maturing selection from Prosser, Washington with oblong, red tubers with red flesh. It resulted from a cross of PA97B35-2 and PA97B29-3. POR01PG20-12 produces good yields with a high proportion of marketable tubers and medium specific gravity. Strengths: good yield, good red flesh color. Weaknesses: poor tuber shape.

VC0967-2R/Y – A medium to early maturing selection from Colorado with oval tubers with light red skin and yellow flesh. It resulted from a cross of Agria and Redsen. VC0967-2R/Y produces medium to low yields with attractive tubers with a deep yellow flesh. Strengths: good yield of marketable tubers, appealing combination of red skin and yellow flesh. Weaknesses: red skin color is relatively light.

VC1002-3W/Y – A medium maturing selection from Colorado with round, white tubers and yellow flesh. It resulted from a cross of Agria and Wischip. VC1002-3W/Y produces higher yields than Yukon Gold, but a very high proportion of undersized tubers. Strengths: deep yellow flesh, resistance to external defects. Weaknesses: high proportion of undersized tubers, high specific gravity may render it unsuitable for boiling.

VC1009-1W/Y – A medium maturing selection from Colorado with oblong white tubers with bright yellow flesh. It resulted from a cross of Agria and MN12823. VC1009-1W/Y has high yields and higher specific gravity than Red LaSoda. Strengths: bright yellow flesh. Weaknesses: some tubers with off shape.

VC1015-7R/Y – An early maturing selection from Colorado with oval, red tubers with bright yellow flesh. It resulted from a cross of Agria and Chieftan. VC1015-7R/Y has low yields, non-uniform tuber appearance and lower specific gravity than Red LaSoda. Strengths: bright yellow flesh. Weaknesses: low yield.

VC1075-1R – A medium maturing selection from Colorado with high yields and round, red tubers. It resulted from a cross of ND1196-2D and Red Ruby. VC1075-1R has similar specific gravity of the common red varieties on the market and the tubers have a creamy-white color. Strengths: excellent marketable yield. Weaknesses: some internal defects.

VC1123-2W/Y – A medium maturing, oval white tuber with yellow flesh selection from Colorado. It resulted from a cross of Agria and FV9307-3. VC1123-2W/Y has average yield and attractive yellow flesh color. It has specific gravity similar to Yukon Gold. Strengths: nice tuber appearance. Weaknesses: tendency for skinning potential.