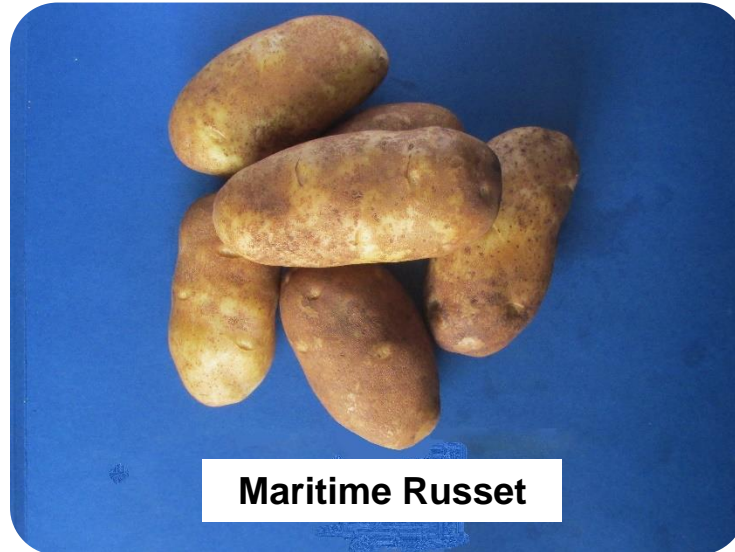


# MARITIME RUSSET (CO97087-2RU)

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**Parentage: CO87009-4 X W1005**

**Breeder: David Holm, Colorado State University**

- Dual purpose, fresh and processing
- Oblong tuber with a heavy russet skin and white flesh
- Medium vine size and semi-erect plants with white flowers
- Eyes are shallow and well distributed
- Good plant vigor with mid-season maturity
- Nice smooth appearance
- Tubers set fairly deep in the row resulting in a low incidence of sunburn (similar to Russet Burbank)
- Tubers are resistant to hollow heart, second growth, growth crack and scab
- Low acrylamide forming potential (Table 2)



## 2-Year Average Production Data from Dryland Variety Trials (2016 & 2017)

- ❖ Trialled at 180lbs N/ac and a 12” spacing
- Average total yield 420.5 cwt/acre, 1.7% less than Russet Burbank, 27.5% more than Goldrush
- Average marketable yield 333.9 cwt/acre, 15.3% greater than Russet Burbank and 33.4% more than Goldrush
- Similar tuber set (9) and size profile distribution as Russet Burbank
- Less defects than the industry standards
- Specific gravity was 1.0890 vs 1.0856, 4 points higher than Russet Burbank
- Good drought tolerance
- Vines should be top-killed 18 to 21 days prior to harvest
- Tubers can be harvested 120 days after planting like Russet Burbank

### Data Recommendations After 2 Years in the Best Management Trial (2016 & 2017)

- Three levels of nitrogen 140, 160 and 180 lbs/ac and three spacings 8, 10, and 12” were included in this trial

#### Recommendation for seed:

- 12” at 140 lbs of N/ac

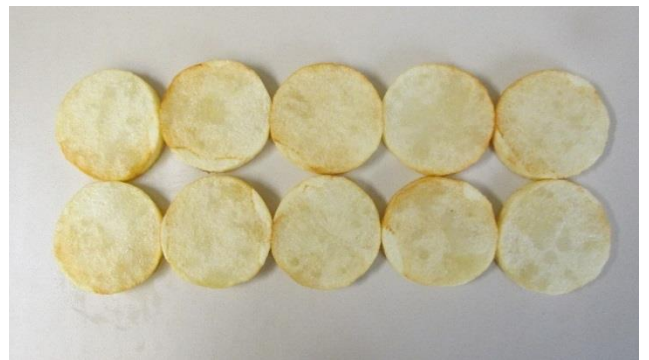
#### Recommendation for processing:

- 12” at 180 lbs of N/ac

## FRENCH FRY COLOR PERFORMANCE



**Maritime Russet** – April 2019 @ 45°F  
**Agtron: 100**  
**USDA: #1 (10)**



**Russet Burbank** – April 2019 @ 45°F  
**Agtron: 83**  
**USDA: #1 (4), #2 (5), #3 (1)**

## Seasonal Average French Fry Colour

(Agtron readings)

Table 1: **Maritime Russet vs Russet Burbank at 45°F**

Year	Variety	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	AVG
2016	<b>Maritime Russet</b>		100	96	94	96	90	96	98	97	97	<b>96</b>
2017	<b>Maritime Russet</b>	100	98	100	100	96	100	99	100	100	94	<b>99</b>
<b>AVG</b>		<b>100</b>	<b>99</b>	<b>98</b>	<b>97</b>	<b>96</b>	<b>95</b>	<b>98</b>	<b>99</b>	<b>99</b>	<b>96</b>	
2016	<b>Russet Burbank</b>	93	79	79	61	75	76	73	75	77	68	<b>76</b>
2017	<b>Russet Burbank</b>		86	94	79	85	86	89	84	81	88	<b>86</b>
<b>AVG</b>		<b>93</b>	<b>83</b>	<b>87</b>	<b>70</b>	<b>80</b>	<b>81</b>	<b>81</b>	<b>80</b>	<b>79</b>	<b>78</b>	

## ACRYLAMIDE FORMATION POTENTIAL

From 2011 to 2013 a National Fry Processing Trial (Wang et al., 2016) was conducted on 140 plus lines (genotypes) using potato varieties low in acrylamide precursors and new potato breeding lines with reduced acrylamide-forming potential, one of these varieties was Maritime Russet (CO97087-2Ru) along with the standards Russet Burbank and Ranger Russet. Of the main objectives two were; 1) to evaluate the agronomic and biochemical properties of advanced breeding lines at harvest and during 8 months of storage and 2) to determine the consistency of these traits across storage regimes. Of all the genotypes there were 38, 34 and 29 (including Maritime Russet) with significantly less acrylamide formation in French Fries after 1, 4, & 8 months in storage, respectively, than the standard Ranger Russet. Reductions were noted to be in excess of 50% after 1 to 8 months.

Table 2:

Acrylamide – forming potential of elite US potato germplasm during storage from National Fry Processing Trial 2011 to 2013 (Wang et al., 2016)			
Variety	Acrylamide ( $\mu\text{g Kg}^{-1}$ )		
	1 month	4 months	8 months
Russet Burbank (std)	1010.4	1160.6	1349.9
Ranger Russet (std)	723.4	870.0	1226.9
CO97087-2RU	370.1	475.4	640.3

Wang, Y., Bethke, P.C., Bussan, A.J., Glynn, M.T., Holm, D.G., Navarro, F.M., Novy, R.G., Palta, J.P., Pavek, M.J., Porter, G.A., Sathuvalli, V.R., Thompson, A.L., Voglewede, P.J., Whitworth, J.L., Parish, D.I. and Endelman, J.B. (2016), Acrylamide-Forming Potential and Agronomic Properties of Elite US Potato Germplasm from the National Fry Processing Trial. *Crop Science*, 56: 30-39. <https://doi.org/10.2135/cropsci2015.03.0173>

*\*\*Based on information provided by the breeder, trial data collection by NBDAAF and from commercial fields. Observations and results may vary slightly depending on location and crop season growing conditions\*\**