



Application Variety Data	Comparison Variety Data
<p>5. LEAF: (First Foliage Leaves)</p>	
<p>___ Shape: 1 = Elliptic 2 = Circular 3 = Ovate 4 = Other (Specify) _____</p>	___ Shape
<p>___ Base: 1 = V-shape 2 = Straight 3 = Lobed</p>	___ Base
<p>___ Tip: 1 = Round 2 = Round-pointed 3 = Pointed</p>	___ Tip
<p>___ Margin: 1 = Flat 2 = Slightly Curled 3 = Curled Under</p>	___ Margin
<p>___ Upper Surface Color: 1 = Light Green (Hollandia) 2 = Medium Green (Giant Nobel) 3 = Dark Green (Long Standing Bloomsdale)</p>	___ Upper Surface Color
<p>Color Chart Name _____ Color Chart Value _____</p>	Color Chart Value _____
<p>___ Lower Surface Color (Compared with upper surface): 1 = Lighter 2 = Same 3 = Darker</p>	___ Lower Surface Color
<p>Color Chart Name _____ Color Chart Value _____</p>	Color Chart Value _____

<p>6. LEAF: (Prime Market Stage)</p>	
<p>___ Surface: 1 = Smooth (Viroflay) 2 = Semi-savoy (Northland) 3 = Savoy (Virginia Savoy)</p>	___ Surface
<p>___ Shape: 1 = Elliptic 2 = Circular 3 = Ovate 4 = Three-sided</p>	___ Shape
<p>5 = Five-sided 6 = Arrow-shaped 7 = Asymmetrical</p>	
<p>___ Base: 1 = V-shaped 2 = Straight 3 = Lobed</p>	___ Base
<p>___ Tip: 1 = Round 2 = Round-pointed 3 = Pointed</p>	___ Tip
<p>___ Margin: 1 = Flat 2 = Slightly Curled 3 = Curled Under 4 = Curled Up</p>	___ Margin
<p>___ Upper Surface Color: 1 = Light Green (Hollandia) 2 = Medium Green (Giant Nobel) 3 = Dark Green (Standing Bloomsdale) 4 = Dull Green (Northland)</p>	___ Upper Surface Color
<p>Color Chart Name _____ Color Chart Value _____</p>	Color Chart Value _____
<p>___ Lower Surface Color (Compared with Upper Surface): 1 = Lighter 2 = Same 3 = Darker</p>	___ Lower Surface Color
<p>Color Chart Name _____ Color Chart Value _____</p>	Color Chart Value _____
<p>___ Luster: 1 = Glossy 2 = Dull</p>	___ Luster
<p>___ Blade Size: 1 = Small (Long Standing Bloomsdale) 2 = Medium (Virginia Savoy) 3 = Large (Giant Nobel)</p>	___ Blade Size
<p>___ Blade Lobing: 1 = Not Lobed 2 = Lobed</p>	___ Blade Lobing
<p>___ Petiole Color: 1 = White 2 = Light Yellow 3 = Light Green 4 = Medium Green</p>	___ Petiole Color
<p>Color Chart Name _____ Color Chart Value _____</p>	Color Chart Value _____
<p>___ Petiole Red Pigmentation: 1 = Present 2 = Absent</p>	___ Petiole Red Pigmentation
<p>___ cm Petiole Length to the Blade</p>	___ cm Petiole Length to the Blade
<p>___ Petiole Length: 1 = Short 2 = Medium 3 = Long (Viroflay)</p>	___ Petiole Length
<p>___ mm Petiole Diameter</p>	___ mm Petiole Diameter
<p>___ Petiole Diameter: 1 = Small 2 = Medium 3 = Large (Giant Nobel)</p>	___ Petiole Diameter

Application Variety Data	Comparison Variety Data
<p>7. SEED STALK DEVELOPMENT:</p> <p>___ Start of Bolting (10% of plants): 1 = Early (Dixie Market) 2 = Medium (Long Standing Bloomsdale) 3 = Late (Norgreen)</p> <p>___ ___ cm Height of Stalk</p> <p>___ Leaves on Stalk of Female Plant: 1 = Few or None 2 = Many</p> <p>___ Leaves on Stalk of Male Plant: 1 = Few or None 2 = Many</p> <p>___ Plants that are Female: 1 = 0-10% 2 = 11-35% 3 = 36-65% 4 = 66-90% 5 = 91-100%</p> <p>___ Plants that are Male: 1 = 0-10% 2 = 11-35% 3 = 36-65% 4 = 66-90% 5 = 91-100%</p> <p>___ Plants that are Monoecious: 1 = 0-10% 2 = 11-35% 3 = 36-65% 4 = 66-90% 5 = 91-100%</p>	<p>___ Start of Bolting</p> <p>___ ___ cm Height of Stalk</p> <p>___ Leaves on Stalk of Female Plant</p> <p>___ Leaves on Stalk of Male Plant</p> <p>___ Plants that are Female</p> <p>___ Plants that are Male</p> <p>___ Plants that are Monoecious</p>
<p>8. SEED:</p> <p>___ Surface: 1 = Smooth 2 = Prickly</p>	<p>___ Surface</p>
<p>9: DISEASE REACTION: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)</p> <p>___ Downy Mildew (<i>Peronospora spinaciae</i>) Race 1</p> <p>___ Downy Mildew (<i>Peronospora spinaciae</i>) Race 2</p> <p>___ Downy Mildew (<i>Peronospora spinaciae</i>) Race 3</p> <p>___ Fusarium Wilt (<i>Fusarium oxysporum f. sp. spinaciae</i>)</p> <p>___ White Rust (<i>Albugo Occidentalis</i>)</p> <p>___ Curly Top Virus</p> <p>___ Cucumber Mosaic Virus</p> <p>___ Other (Specify) _____</p>	<p>___ Downy Mildew Race 1</p> <p>___ Downy Mildew Race 2</p> <p>___ Downy Mildew</p> <p>___ Fusarium Wilt</p> <p>___ White Rust</p> <p>___ Curly Top Virus</p> <p>___ Cucumber Mosaic Virus</p> <p>___ Other (Specify) _____</p>
<p>10. WINTER HARDINESS:</p> <p>___ Hardiness: 1 = Not Hardy 2 = Moderate 3 = Hardy Location: _____</p>	<p>___ Hardiness Location: _____</p>

11. Comments. Attach ONE photographic print of the application variety and the comparison variety described above, indicating the identity of each variety. This photograph should show leaves of each variety at a magnification sufficient to identify most of the verbal descriptors given above. (Additional information and photographs in support of this application may be supplied as part of the Exhibits B or D.)

References:

Magruder, R. et al 1938. Descriptions of types of principal American varieties of spinach. United States Department of Agriculture Miscellaneous Publication No. 316.

Rodenburg, C.M. and Huyskes, J.A. 1964. The identification of varieties of lettuce, spinach and witloof chicory. Proceedings International Seed Testing Association Volume 29(4):963-977.

Ryder, Edward J. 1979. Leafy salad vegetables. AVI Publishing Company, Inc. Westport, CT.