Blueberry Cultivar Trial Results at Mountain Grove

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State Fruit Experiment Station

Soil Characteristics
Wilderness cherty silt loam
silt loam topsoil
silty clay loam subsoil
5 to 20% chert
fragipan horizon
organic matter 2.5 to 3%
5 to 9% slope

Establishment and Growth
Starting in 2009 with additions in 2010 and 2011
Blueray and Jersey planted in 2011 not reported on
Limited land preparation
two seasons of cover cropping and incorporation before planting
sulfur (blueberry) and fertilizer amendments prior to planting
pH initially 6.1 and lowered to 4.8 for blueberries
planted on flat ground with no bedding
peat moss mixed in backfill soil at blueberry planting
Fertilization
initial nitrogen application 40 lbs/A
nitrogen raised to 80 lbs/A, fertigation implemented
higher nitrogen rates used because of mulch
Shredded bark mulch used along plant rows
Drip irrigation lines along rows
Defruited for two growing seasons and selective fruit thinning in blueberries

Blueberry

<table>
<thead>
<tr>
<th>Blueberry</th>
<th>Highbush</th>
<th>Origin</th>
<th>Season</th>
<th>Berry Size</th>
<th>Nursery Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlen</td>
<td>Northern</td>
<td>North Carolina</td>
<td>Late</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Aurora</td>
<td>Northern</td>
<td>Michigan</td>
<td>Late</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Bluecrop</td>
<td>Northern</td>
<td>MD-USDA</td>
<td>Mid</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Bluegold</td>
<td>Northern</td>
<td>NJ-USDA</td>
<td>Mid</td>
<td>L</td>
<td>Yes</td>
</tr>
<tr>
<td>Blue ray</td>
<td>Northern</td>
<td>MD-USDA</td>
<td>Late</td>
<td>VL</td>
<td>Yes</td>
</tr>
<tr>
<td>Draper</td>
<td>Northern</td>
<td>Michigan</td>
<td>Mid</td>
<td>M</td>
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</tr>
<tr>
<td>Duke</td>
<td>Northern</td>
<td>NJ-USDA</td>
<td>Early</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Elliott</td>
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<td>MD-USDA</td>
<td>Late</td>
<td>M</td>
<td>Yes</td>
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<tr>
<td>Hannah's Choice</td>
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<td>No</td>
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<td>Jersey</td>
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<tr>
<td>Liberty</td>
<td>Northern</td>
<td>Michigan</td>
<td>Late</td>
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</tr>
<tr>
<td>Nelson</td>
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<tr>
<td>Rubel</td>
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<td>Wild selection</td>
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Blueberry Yield (lbs/plant)

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<tr>
<th>Blueberry</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>4-year Total</th>
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<tr>
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<td>ab</td>
<td>1.6</td>
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<td>6.6</td>
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Planted 2009

4-year Total
Blueberry Yield (lbs/plant) 2011 2012 2013 2014 4-year Total
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Arlen1 2 sec 2.1 sec 5.1 6.3 14.7
Aurora1 2.2 sec 2.9 sec 8.5 9.2 23.7
Bluecrop 1.3 sec 1.8 sec 4.0 6.8 14.6
Bluegold1 2.3 sec 2.4 sec 8.0 12.1 26.4
Chandler1 3.5 sec 3.1 sec 5.6 8.5 14.7
Draper1 0.6 sec 3.0 sec 5.2 8.1 16.9
Duke1 1.3 sec 2.9 sec 4.5 4.3 11.3
Elliott1 3.3 sec 3.8 sec 8.0 6.6 20.7
Hannah’s Choice1 0.6 sec 3.2 sec 3.9 5.4 13.1
Legacy1 1.3 sec 1.5 sec 8.5 9.2 24.2
Liberty1 2.4 sec 1.4 sec 9.1 11.0 26.6
Reka1 0.1 sec 0.0 sec 2.5 4.6 9.4
Rubel1 1.6 sec 7.6 sec 5.4 6.6 14.2

Blueberry Berry Weight (g) 2011 2012 2013 2014 Average
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Arlen1 1.9 sec 1.9 sec 1.5 sec 1.8
Aurora1 2.3 sec 1.9 sec 1.9 sec 2.0 sec 1.9
Bluecrop1 1.5 sec 1.7 sec 1.3 sec 1.5
Bluegold1 3.4 sec 1.2 sec 1.4 sec 1.3
Chandler1 2.4 sec 1.5 sec 1.6 sec 2.2
Draper1 2.0 sec 1.3 sec 1.5 sec 1.7
Duke1 4.4 sec 4.4 sec 3.2 sec 4.4 sec 4.4
Elliott1 3.7 sec 1.6 sec 1.8 sec 1.4 sec 1.5
Hannah’s Choice1 2.0 sec 1.3 sec 1.8 sec 1.6 sec 1.7
Legacy1 3.9 sec 1.5 sec 1.5 sec 1.5 sec 1.6
Liberty1 1.7 sec 1.5 sec 1.2 sec 1.6 sec 1.5
Reka1 4.4 sec 1.5 sec 1.8 sec 2.2 sec 2.1
Rubel1 3.9 sec 1.2 sec 1.9 sec 1.8 sec 1.0

Preliminary Recommendations
Aurora – late, moderate to high yield, medium to large berries, spreading habit
Bluegold – mid, high yield, small to medium berries, compact habit, cold hardy
Draper – mid, moderate yield, medium berries, upright habit
Duke – early, low yield, medium berries, upright habit
Legacy – mid, moderate to high yield, medium berries, upright habit, disease resistant
Liberty – late, high yield, medium berries, upright habit

Nurseries
DeGrandchamp Farms – www.degrandchamps.com
Fall Creek Farm & Nursery – www.fallcreeknursery.com
Hartmann’s Plant Company – www.hartmannsplantcompany.com
Nourse Farms – www.noursefarms.com
Simmons Plant Farm – www.simmonsplantfarm.com