Project Results
No Chico Brush 2018 Sweet Corn Evaluation
°Brix = unit of measurement to assess dissolved solids in plant juices (amino acids, proteins, minerals, vitamins, and the sugars fructose and sucrose)

GDD = Growing Degree Days measure heat accumulation throughout the growing season
## Sweet Corn Quality Data

<table>
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<tr>
<th>Producer</th>
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<th>°Brix Gain Rate (every 100 GDD) after 1400 GDD</th>
<th>Final °Brix at Harvest</th>
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<th>Stand Ct</th>
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<th>ton/ac)</th>
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<th>pH</th>
<th>Soluble Salts (mmhos/cm)</th>
<th>CEC (meq/100g)</th>
<th>Nitrogen resid (ppm)</th>
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Smaller Ears  Fast  Slow  Larger Ears

Brix Gain Rate after 1400 GDD

Ear weight (lb) per 100 plants per GDD

553  554  92  112
90  91  113  94
Smaller Ears  ❃  Larger Ears

Fast

Slow

°Brix Gain Rate after 1400 GDD

Ear weight (lb) per 100 plants per GDD

Smaller Ears

Larger Ears

Fast

Slow

°Brix Gain Rate after 1400 GDD

Ear weight (lb) per 100 plants per GDD

Smaller Ears

Larger Ears
NCB Evaluation Site Setup

Effective Root Zone
Sweet Corn
24” – 36”

NCB Project assumes 30”
NCB Site 112 Volumetric Water Content (VWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

NCB Site 553 Volumetric Water Content (VWC) for 0-30 inch profile
NCB Site 553 Volumetric Water Content (VWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

NCB Site 553 Available Water Content (AWC) for 0-30 inch profile
NCB Site 112 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

Available Water

NCB Site 553 Available Water Content (AWC) for 0-30 inch profile

Available Water
NCB Site 112 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

NCB Site 553 Available Water Content (AWC) for 0-30 inch profile
NCB Site 112 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

NCB Site 553 Available Water Content (AWC) for 0-30 inch profile
Individual Sites
NCB Site 94 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)
NCB Site 554 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

Available Water  Full Soil Profile (derived)  °Brix

Cumulative Growing Degree Days from Planting

Zero denotes PWP on this graph
NCB Site 92 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

- Available Water
- Full Soil Profile (derived)
- °Brix

Cumulative Growing Degree Days from Planting

Available Water (in)

°Brix

Zero denotes PWP on this graph
NCB Site 90 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Montauk Variety)

Available Water  Full Soil Profile (derived)  °Brix

Cumulative Growing Degree Days from Planting

Zero denotes PWP on this graph
NCB Site 113 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

Available Water

Full Soil Profile (derived)

°Brix

Zero denotes PWP on this graph
NCB Site 112 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

Available Water
Full Soil Profile (derived)
°Brix

Cumulative Growing Degree Days from Planting

Available Water (in)
°Brix

Zero denotes PWP on this graph
NCB Site 553 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)
NCB Site 91 Available Water Content (AWC) for 0-30 inch profile
Olathe, CO (Sweet Corn, Montauk Variety)

Available Water  Full Soil Profile (derived)  °Brix

Cumulative Growing Degree Days from Planting

Zero denotes PWP on this graph
NCB Project Update | February 4, 2019 | Delta, CO

LOMA, CO

NCB Project Update

February 4, 2019

Delta, CO 24

0.090

0.080

DD

ear weight per 100 plants per GDD

25

20

15

10

5

0

0.050

0.055

0.060

0.065

0.070

0.075

0.080

Available water (m)

554

92

553

90

112

113

94
Additional Slides
Management Allowable Depletion (MAD)

MAD: The point where plants begin to experience drought stress. For most plants, MAD is about 60 – 50% of the total available water in the soil.
## Table 3. Irrigation Management and Soil Moisture

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