2018 Annual Member Meeting
Tuesday, December 4, 2018
Chicago, IL

For more information contact USTN Coordinator:
Practical Famers of Iowa

Coordinator Chris Wilbeck 515.229.6988
chris.ustn@practicalfarmers.org

Advisor Sarah Carlson 515.232.5661
sarah@practicalfarmers.org
Agenda

Overview
Data
Improvements
Challenges & Suggestions
Wrap-Up
2018 Overview
Purpose

The US Testing Network (USTN) is run as a not-for-profit, participant-based network started in 2009 and coordinated by Practical Farmers of IA.

USTN’s purpose is to coordinate a rigorous testing program to evaluate public and private germplasm.

The primary focus of USTN is to evaluate germplasm under development for the organic and non-transgenic grain (corn) industry.

USTN’s participants provide seed to be tested, locations for testing and/or financial support.
Before USTN

Organic & Non-GMO corn breeders & retailers:

- Had few economical testing options
- Ran isolated testing programs
- Were geographically limited
- Relied on small data sets
- Lacked an efficient network to communicate data

Making it hard to assess a hybrid’s performance across a range of environmental conditions.
With USTN

- ECONOMICAL, ONE-STOP testing service across a WIDE RANGE of LOCATIONS
- INCREASED EXPOSURE for independent programs of varying sizes
- COLLABORATIVE NETWORK of breeders, seed companies and end-users focused on the non-GMO and organic marketplace.

GOAL: Improved QUALITY and QUANTITY of non-GMO & organic hybrids available to farmers
USTN Testing Coordination

Test Coordination - Practical Farmers of IA
Chris Wilbeck, PFI consultant - coordinator
Sarah Carlson, PFI advisor

Data Analysis - USDA-ARS
Jode Edwards, USDA-ARS (Ames IA)

Current Steering Committee
Charlie Brown, Brownseed Genetics
Dan Dorney, DKD Genetics
Jode Edwards, USDA-ARS
Mac Ehrhardt, Albert Lea Seed
Chris Eichhorn, Wyffels Hybrids
Alix Paez, Genetic Enterprises International
Participants

Public Breeders
Private/Independent Breeders
Seed Retailers
Seed Treatment Developers
Researchers
Past Participants

Albert Lea Seed
Brownseed Genetics
Maison Semences
DKD Genetics
Iowa State University
Michael Fields Agricultural Institute
Penn State
Organic Valley
University of Missouri
NDSU - North Dakota State University
Masters Choice Seedcorn.com
Emergence Genetics
Montgomery Consulting
The University of Vermont
Texas A&M AgriLife Research
Foundation Organic Seeds, LLC
MRK Mark Seed
USDA

More than a number.

Frank Kutka
# Participants

<table>
<thead>
<tr>
<th>Can be both</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<th>2018</th>
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2018 Locations: 53 test sites in 10 states

Note: some locations provide sites for organic & conventional tests
# Entries

<table>
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<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>177</td>
<td>232</td>
<td>249</td>
<td>330</td>
<td>260</td>
<td>145</td>
<td>226</td>
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230 break-even
Should not rely on any one tester

# TOT ENTRIES

119 from 2 testers

230 = break-even

144 from 1 tester

105 from 1 tester

tot entries - tot w/out large testers
<table>
<thead>
<tr>
<th>TEST</th>
<th>TYPE</th>
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<td>EC1</td>
<td>CONV</td>
<td>90 or 95W</td>
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<td>15</td>
<td>15</td>
<td>11</td>
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<tr>
<td>EC1</td>
<td>CONV</td>
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<td>-</td>
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<td>CONV</td>
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<td>EC5</td>
<td>CONV</td>
<td>115FW-i</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>10</td>
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<tr>
<td>EC5</td>
<td>CONV</td>
<td>115FW</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>-</td>
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<td>EO1</td>
<td>ORG</td>
<td>95</td>
<td>37</td>
<td>23</td>
<td>18</td>
<td>18</td>
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<td>EO3</td>
<td>ORG</td>
<td>105</td>
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<td>16</td>
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<td>17</td>
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<td>EO4</td>
<td>ORG</td>
<td>110</td>
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<td>11</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>330</td>
<td>260</td>
<td>145</td>
<td>226</td>
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</table>
## Budget

### Goal is to BREAK-EVEN

<table>
<thead>
<tr>
<th></th>
<th>ACTUAL 2017</th>
<th>ACTUAL 2018</th>
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<tbody>
<tr>
<td><strong>SS Income</strong></td>
<td>$33,904</td>
<td>$56,664</td>
</tr>
<tr>
<td>less no harvests</td>
<td>-$715</td>
<td>-$824</td>
</tr>
<tr>
<td>less free to fill tests</td>
<td>-$960</td>
<td>-$10,080</td>
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<tr>
<td><strong>TOTAL INCOME</strong></td>
<td>$32,229</td>
<td>$45,760</td>
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<tr>
<td><strong>LM Payments</strong></td>
<td>$22,056</td>
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<tr>
<td>LM donation</td>
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<tr>
<td>LM credit (apply next year)</td>
<td>-$99</td>
<td>-$1,292</td>
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<td>LM credit (apply this year)</td>
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<tr>
<td><strong>Coordinator</strong></td>
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<td>$9,938</td>
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<td><strong>PFI Book-Keeping</strong></td>
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<td><strong>Annual Meeting</strong></td>
<td>$3,856</td>
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<td><strong>OREI reim ASTA</strong></td>
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<td>-$800</td>
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<tr>
<td><strong>TOTAL EXPENSE</strong></td>
<td>$36,160</td>
<td>$49,205</td>
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<tr>
<td><strong>NET</strong></td>
<td>-$3,931</td>
<td>-$3,445</td>
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</table>

Free to fill tests:

- **2017:**
  - $4 = 2 conv + 2 org

- **2018:**
  - $37 = 5 conv + 32 org

$3000 is for meeting room
2018 Data
presented by
Jode Edwards USDA-ARS
Improvements
2018 Improvements

3 Reports per Test

1. **USTN:** internal  *(ALWAYS PROVIDED)*
   all entries - not for public distribution

2. **Public:** public  *(NEW LAST YEAR)*
   entries tester agrees can be on report
   use all-entry summary test statistics

3. **Top 3 per Test:** public  *(NEW THIS YEAR)*
   entries tester agrees can be on report
   use all-entry summary test statistics

**BENEFITS:**

- same cost per entry
- customizable, formatted public data for websites
- raw data still distributed for internal use
## Entries per Tester

<table>
<thead>
<tr>
<th>TESTER</th>
<th>USTN</th>
<th>Top 3</th>
<th>Public</th>
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<tbody>
<tr>
<td>AL</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Becks</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Cornell</td>
<td>8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>CRD</td>
<td>4</td>
<td></td>
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<tr>
<td>DKD</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>GEI</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>GHO</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Mand</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>MAS</td>
<td>7</td>
<td>7</td>
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<tr>
<td>MC</td>
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<tr>
<td>Mont</td>
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<td>SEN</td>
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<tr>
<td>USDA</td>
<td>7</td>
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<tr>
<td>FILLED</td>
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<tr>
<td>TOTAL</td>
<td>226</td>
<td>184</td>
<td>32</td>
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</table>

- Most entries ok for Top 3 Report = 81% of total entries
- Not many agree to have entries on Public Report = 14% of total entries
## Entries per Test

<table>
<thead>
<tr>
<th>TEST</th>
<th>USTN</th>
<th>Top 3</th>
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<th>Top 3+ Public</th>
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<td>EC1-95W</td>
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<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>EC3-105E</td>
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<td>9</td>
<td>2</td>
<td>4</td>
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<tr>
<td>EC3-105EW</td>
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<td>EC4-110E</td>
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<td>3</td>
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<td>EC5-115E</td>
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<td>EO1-95</td>
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<td>EO3-105</td>
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<td><strong>TOTAL</strong></td>
<td><strong>226</strong></td>
<td><strong>184</strong></td>
<td><strong>32</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>

Top 3 entries added to Public Report = 23% of total entries
2018 Improvements

Added 3rd Rep to EO4-110 Organic Test

Encouraged more nitrogen applications in organic (see Organic Location Comments)

Improved data analysis
Challenges
&
Solutions
Challenges & Solutions

Challenge:
Number of organic entries dropping from current members
Difficult to fill tests
• “known” organic breeders/retailers already contacted
• gave free organic entries to fill tests

Solution:
Need more organic testers
• other OREI groups? European seed breeders/retailers?
Are there other uses for USTN organic testing network?
• Add test option: 1 location per test
  ex: EO1-95 Penn Yan, EO3-105 Wooster, EO4-110 Ames
  3 reps per entry: 500 kernels vs 1200-2000 kernels needed previously
• Other?
Challenges & Solutions

Challenge:
Difficult to get “checks”
• swapped free organic entries for checks (Becks/GHO)
• LM provided some checks (CRD, Cornell)
• SS submitted own checks (DKD, MC)

Solution:
MBS provides conventional checks
• SS buys seed from MBS & signs agreement
• pedigree & hybrid on USTN report/hybrid on Public reports
• USTN gives SS 1 free entry per check
Get organic checks from (need option?)
• need to show pedigree & hybrid on USTN report, hybrid on public reports
Challenges & Solutions

Challenge:
Organic certification letters not always with seed
• SS reminded in instructions, but still forgets
• LM asks for it prior to an inspection (short notice)

Solution:
Send 2\textsuperscript{nd} reminder to SS
Remind LM to check seed shipment for letter
Challenges & Solutions

Challenge:
Farmers unaware of USTN and results
• current PFI website focus for breeders/retailers
• Public data only available since 2017 (limited)

Solution:
Push-out the info to farmers
Encourage farmers to go to SS websites to buy seed
• highlight Top 3 Reports
• PFI social media tweets
• Tester social media tweets
Challenges & Solutions

Challenge:
Rising cost of meeting at Hyatt
• meeting room costs $3000
  • room + min food/beverage $2000
  • affiliate charge to get a meeting room $500
  • badge charge $100
  • AV cost $400

Solution:
Consider a nearby restaurant w/meeting room
• in 2012, met at Bella Bacinos for $800 (food included)
Challenges & Solutions

Challenge:
Invoicing too complex with minimal benefits
• deducting payments made or received when location not harvested
• other testing services don’t do this?

Solution:
Streamline invoicing
• pay LM full payment, even if location not harvested
• SS pays full payment, even if location not harvested
• still deduct payments, if location not planted
Challenges & Solutions

Challenge:
Would like to send data reports earlier
• some locations received early
• many locations harvested later
• analysis not done until all locations are in for test
• report production is time consuming

Solution:
Email raw data weekly starting mid-Nov
Minimize report formatting with pre-production
Challenges & Solutions

Others?
Wrap-Up
JOIN!

To become a member and participate in 2019 USTN Testing

Contact:

Chris Wilbeck (USTN) 515.229.6988  
chris.ustn@practicalfarmers.org