NRCS Update for ICCA

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Main Updates for 2018

- **Reorganizations at the USDA**
- **Erosion Prediction Technologies**
  - Water Erosion Prediction Program (WEPP)
  - Wind Erosion Prediction System (WEPS)
  - Integrated Erosion Tool (IET)
- **Nutrient Management**
  - 590 Conservation Practice Standard in process of revision
  - Conservation Activity Plans 102 (CNMP) or 104 (NMP)
- **Integrated Pest Management**
  - 595 Conservation Practice Standard in process of revision
- **CAP 138 Conservation Plan Supporting Organic Transition**
- **Pilot CAP 132 Soil Resources Planning**
- **Cover Crop Issues**
- **Beyond 2018**
  - CAP Harmonization planned roll out for FY20
  - New Farm Bill
This organization chart displays the names of USDA offices, agencies, and mission areas. Each office, agency, and mission area is placed within a cell connected by lines to show the structure and hierarchy (Assistant Secretary, Deputy Secretary, or Secretary) for which they fall under. An HTML version that lists USDA Agencies and Offices and USDA Mission Areas is also available on usda.gov.
This organization chart displays the names of USDA offices, agencies, and mission areas. Each office, agency, and mission area is placed within a cell connected by lines to show the structure and hierarchy (Under Secretary, Deputy Secretary, or Secretary) for which they fall under. An HTML version that lists USDA Agencies and Offices and USDA Mission Areas is also available on usda.gov.
Erosion Prediction Technologies

- **Water Erosion Prediction Project (WEPP)**
  - Process-based model which utilizes web-based management, climate, and soil databases
    - Updated climate information (1973-2013)
    - Databases stay current; no annual uploading
  - Yields and crop growth predictions are adjusted for each unique year based on generated climate
    - Simulates a number of years, with each day having different input climatic data
  - Upon release, the web-based model will replace the Revised Universal Soil Loss Equation, Version 2 (RUSLE2)
  - There will be one url, standalone version available to NRCS, partners, and the public
**Example Display**

**WEPP 03/30/2017**

<table>
<thead>
<tr>
<th>Project</th>
<th>Results Analysis</th>
<th>History</th>
<th>Map</th>
<th>Managements</th>
<th>Help</th>
</tr>
</thead>
</table>

**Client Name:** FCCA

**Field Name:** Field 1

**Location (Latitude):** 41.32204/41.087107

**Location (Longitude):** -64.8525/43.3327822

**State:** Iowa County - ADAMS COUNTY

**Climate Data:** PRISM 2015

**Run Years:** 100

**Soil:** MCB/Chambers silt loam, 2 to 5 percent slope

**Strip Management:** 0: None

**Corralling:** 0: None, 1: Corn

**Management Results By Segment**

<table>
<thead>
<tr>
<th>Name</th>
<th>Soil Detachment (yr)</th>
<th>Detachment Length (ft)</th>
<th>Soil Disposition (yr)</th>
<th>Disposition Length (ft)</th>
<th>Soil Disposition (m/yr)</th>
<th>Sediment Delivery (yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn 100 FC Disc Fertilizer</td>
<td>1.00</td>
<td>200.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Annual Statistics for 100 years**

<table>
<thead>
<tr>
<th>Model Output</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Coef. of Variation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precipitation (m/yr)</td>
<td>34.66</td>
<td>35.97</td>
<td>5.97</td>
<td>0.17</td>
<td>21.05</td>
<td>52.11</td>
</tr>
<tr>
<td>Sediment Delivery (yr)</td>
<td>1.68</td>
<td>1.74</td>
<td>0.75</td>
<td>0.47</td>
<td>0.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Runoff (m/yr)</td>
<td>8.60</td>
<td>7.35</td>
<td>3.21</td>
<td>0.47</td>
<td>1.78</td>
<td>27.30</td>
</tr>
<tr>
<td>Irrigation (m/yr)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Results**

Generated Yields based on climate & soil data

**Statistics**

[Service](nrcc.usda.gov)
Erosion Prediction Technologies

- **WEPP – Enhancements in Progress**
  - Prediction of ephemeral erosion
    - Simulates channel detachment, sediment transport, and deposition
  - Small watershed soil loss results
    - Allows linkages of hillslope profiles to channels and impoundments
  - Model testing using predicted changes in climate over the next century to predict effects on erosion, crop growth, etc.
Erosion Prediction Technologies

• **Wind Erosion Prediction System (WEPS)**
  • Process-based model which utilizes web-based management, climate, and soil databases
    • Updated climate information (1973-2013)
    • Databases stay current; no annual uploading
  • Yields and crop growth are adjusted for each unique year based on generated climate
  • Standalone version will be available to NRCS, partners, and the public
Nutrient Management

- **Nutrient Management (590) Conservation Practice Standard revision in process**
  - Currently out for public comment until October 5th in the Federal Register
  - Changes are to format and flow
  - No major technical changes

- **Current options for Nutrient Management**
  - Nutrient Management Plan Conservation Activity Plan (CAP 104)
  - Comprehensive Nutrient Management Plan Conservation Activity Plan (CAP 102)
  - Farmers contract directly with private sector consultants/agribusiness (NRCS Technical Assistance Funds)
  - NRCS development of Nutrient Management Plans
  - Farmers contract with NRCS to implement nutrient management (NRCS Financial Assistance Funds)
Nutrient Management

- **Partnerships**
  - Increased reliance on the agribusiness sector to develop NMPs and CNMPs (CCAs, independent crop consultants, companies, and cooperatives)
  - Continue to encourage the development and utilization of nutrient management plans to address resource concerns, while maintaining (or increasing) production
  - Education and information sharing related to nutrient management and water quality, air quality, and soil condition
Integrated Pest Management

- **Integrated Pest Management (595) Conservation Practice Standard revision in process**
  - Currently out for public comment until October 5\textsuperscript{th} in the Federal Register
  - Current proposal is to break it into 2 separate standards
    - IPM (595)
    - Pesticide Mitigation (594)

- **Current options for IPM**
  - IPM Conservation Activity Plan (CAP 114)
  - IPM Herbicide Resistance Weed Plan (CAP 154)
  - Farmers contract directly with private sector consultants/agribusiness (NRCS Technical Assistance Funds)
  - NRCS development of IPM Plans
  - Farmers contract with NRCS to implement IPM (NRCS Financial Assistance Funds)
  - CSP Enhancement added for reduced seed treatments on corn and soybean crops
CAP 138 – Conservation Plan Supporting Organic Transition

- **Major change to utilize Organic System Plan (OSP) Templates:**
  - TSPs will complete section that are in *bold* font
  - Will help producers and staff learn the parts of the OSP
  - Eliminates the need for a separate supplement
  - Producers will complete the remaining sections for their OSP

- **Minor changes are to the remaining NRCS sections:**
  - Resource Concern Inventory shortened to one page
  - Erosion Control Inventory updated to include wind erosion measurements
Pilot CAP 132 – Soil Resources Planning

- Pilot CAP being offered in Iowa, Mississippi, North Dakota, and South Dakota
- Identifies soil concerns, as well as potential economic considerations at a subfield level
- Applies to land that is currently producing annually planted agricultural commodities (Pilot does not apply to orchards, vineyards, pasture, hay, range, or forest)
Cover Crops Issues

• **Pesticide Use and Cover Crops**
  - Considerations of pesticide used during crop production for cover crop establishment

• **Pesticide Use and Cover Crops used for grazing or silage**
  - Consideration of pesticide use when grazing cattle or using the cover crop as a silage

• **Pesticide Labels may not include Cover Crop**
  - Follow recommendations on a cash crop for the cover crop
Beyond 2018

- **CAP Harmonization**
  - Project underway to update current CAPs to have the same formatting and similar work products
  - Recently went out for internal and external review
  - LOTS of great comments

- **New Farm Bill**
Questions?

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