HEMP
“The Gateway Crop”
Tony Silvernail
WEBINAR LOGISTICS

- Collapse panel
- Change audio
- Ask a question
HEMP

“The Gateway Crop”

Tony Silvernail
Hemp In Kentucky

≈ 280 Hemp Lic. in 2018

≈ 1100 Hemp Lic. in 2019
The Gateway Crop?

- Tremendous interest in Hemp
- Why ORGANIC Hemp?
Interest in Hemp has pushed interest in ORGANIC
Steep learning curve
Fight the ‘ALMOST’
ORGANIC Association of Kentucky

- Non profit, membership based organization dedicated to improving the health of the environment and the citizens of Kentucky. Oak provides resources and educates Kentucky farmers and consumers who are interested in driving change for a more regenerative and organic food system
- https://www.oak-ky.org/
- Transition Training Program -2016
  - Free program to OAK Members
ORGANIC Transition/OSP Development

- Fundamental principles of organic agriculture
- Practical Application
  - Navigate regulations
  - Farm transition plans
  - Practical details about organic crop, livestock, grain, and dairy production
  - Organic Seed, Fertilizer, Supplies, etc....

Care  Ecology
Health  Fairness
National Organic Program
NOP
(Ag Marketing Service, AMS)

- Organic Food Production Act of 1990,
- Final Rule establishing the NOP, 2000
- Rules Established, October 2002
- Organic Hemp
ORGANIC Certification

5 Challenges of Transition/Certification

1. Defining the Farm and Fields
2. Production Practices
3. Organic Sourcing
4. Accepted and Prohibited
5. Records
ORGANIC Production

- Where does HEMP(CBD) fit in?
  1. Rotations
  2. Nutrient Requirements
  3. Production Practices
  4. Post Harvest
The Gateway Crop

ORGANIC Production

Rotations

Dr Shawn Lucas – Kentucky State University
1. Small Grains, Pastures, Vegetables?
2. What Works?
ORGANIC Production

➢ Hemp: CLONE vs SEED

A ‘Passionate Debate’
The Gateway Crop

ORGANIC Production

Planting, Maintenance, Harvest
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ORGANIC Sourcing

- Production Supplies
  - Seeds
  - Planting Stock
  - Fertilizers
  - Pest Control
  - Miscellaneous Supplies

Pennsylvania Certified Organic

OMRI Listed
Organic Materials Review Institute

PCO
Pennsylvania Certified Organic
Organic Sourcing

- Production Supplies
- Seeds
- Planting Stock

Electronic Code of Federal Regulations

e-CFR data is current as of February 8, 2010

Title 7 Agriculture
PART 205 - NATIONAL ORGANIC PROGRAM
Subpart C - Organic Production and Handling Requirements

SEC. 205.204 Seeds and planting stock practice standard.
(a) The producer must use organically grown seeds, annual seedings, and planting stock, except that:
(1) Nongenetically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent genetically produced variety is not commercially available, except that genetically produced seeds must be used for the production ofingleton varieties;
(2) Nongenetically produced seeds and planting stock that have been treated with a substance included on the national list of synthetic substances allowed for use in organic crop production may be used to produce an organic crop when an equivalent organically produced or untreated variety is not commercially available;
(3) Nongenetically produced annual seedings may be used to produce an organic crop when a temporary variety has been granted in accordance with §205.200(b)(1);
(4) Nongenetically produced planting stock to be used to produce a perennial crop may be such untreated or certified organic material produced only after the planting stock has been maintained under a system of organic management for a period of not less than 3 years; and
(5) Seeds, annual seedings, and planting stock treated with prohibited substances may be used to produce an organic crop when the application of the substance is a requirement of federal or state phytosanitary regulations.

NOP Rule 205.204
NOP Rule requires the use of certified organic seeds, unless the variety is not commercially available. If using non-organic seeds, you must have records of your attempts to source organic seed. Synthetic seed treatments are prohibited unless included on the National List. Genetically engineered/modeled (GMO) seeds and inoculants are prohibited in organic production. NOP Rule uses the phrase "excluded methods" to refer to GMO products. Please save all seed and inoculant labels, and documentation of commercial unavailability of organic seeds to show the inspector.

List all seeds used or planned for use in the current season, including cover crops and greenhouses. Check the appropriate boxes and provide other information as needed. Attach additional sheets if necessary.

☐ NO SEEDS USED (Go to section 4) ☐ ANY GMO SEEDS USED? ☐ Yes ☐ No

"If any conventional untreated (not certified organic) seeds were used, describe your seed source attempts in order to document commercial unavailability here:

<table>
<thead>
<tr>
<th>SEED &amp; VARIETY</th>
<th>CERTIFIED ORGANIC</th>
<th>CONVENTIONAL UNTREATED</th>
<th>COMPANY PURCHASED FROM</th>
<th>TYPE OR BRAND OF COATING OR INOCULANT IF ANY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Please See Attached Seed List</strong></td>
<td>□</td>
<td>□</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revised 12/2018
Organic Sourcing

- Production Supplies
- Seeds
- Planting Stock

Kentucky Department of Agriculture

Organic Hemp Policy
January 23, 2019

Overview:
Currently, KDA will certify hemp and hemp processors as organic. Our policy to become organically certified for hemp production is as follows:

- Must be a license holder, and be in good standing with KDA’s hemp program.
- KDA will certify the production of hemp for floral material extract (example: CBD oil or full spectrum hemp extract).
- KDA will certify hemp seed/grain and hemp fiber production and processing.
- Seedlings must come from a certified organic greenhouse.
- KDA will not certify products marketed for animals (example: hemp floral material extract treats for dogs, hemp grain for poultry feed, hemp fiber for horse bedding), until such products are approved by the Association of American Feed Control Officials and/or the U.S. Food & Drug Administration.

- For a hemp product to be certified organic, both the crop and the processor must be certified organic.
- Must use organic seeds, unless commercial unavailability is documented.
- Cuttings (hemp clones) must be organic, unless commercial unavailability is documented.
  - If commercial unavailability is determined, non-organic planting stock may be used. The non-organic planting stock (example: a mother plant) would be considered conventional, but anything added to the cutting after rooting must be approved for organic use and documented on the OSP for the cutting to be approved for organic production.
  - 2nd generation cuttings taken from the 1st generation cutting would then be considered organic planting stock.
- Organic mother plants could also be obtained by starting from seed and using only organic approved inputs on the plant.
- Per guidance document 5029 4.3.3, feminized seeds would be allowed for use in organic production with a documented use search.
  - Producers who wish to collect their own feminized seeds would be allowed to do so. The products used to induce this process do not require review.
The Gateway Crop

ORGANIC Sourcing

- Production Supplies
- Pest Control
The Gateway Crop

Record

What Do Need to Keep Track of.....

- Inputs
- Receipts
- Field Activity
- Sales

<table>
<thead>
<tr>
<th>Date</th>
<th>Invoice</th>
<th>Buyer</th>
<th>Lettuce</th>
<th>Spinach</th>
<th>Swis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/13/2016</td>
<td>2038</td>
<td>Good Foods</td>
<td>21.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/20/2016</td>
<td>2041</td>
<td>Good Foods</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/26/2016</td>
<td>2042</td>
<td>Good Foods</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/1/2016</td>
<td>2046</td>
<td>Good Foods</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/7/2016</td>
<td>2047</td>
<td>Good Foods</td>
<td>31.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/14/2016</td>
<td>2048</td>
<td>Good Foods</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/25/2016</td>
<td>3000</td>
<td>Good Foods</td>
<td>8.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/31/2016</td>
<td>3001</td>
<td>Good Foods</td>
<td>15.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/8/2016</td>
<td>3004</td>
<td>Good Foods</td>
<td>23.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Logs

High Tunnel 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Operation</th>
<th>Operator</th>
<th>Equip</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/12/2016</td>
<td>Weed/Water</td>
<td>Family</td>
<td>Drip/Hoes</td>
<td>Quick weed and a 2hr water</td>
</tr>
<tr>
<td>4/16/2016</td>
<td>Harvest</td>
<td>Tony</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>4/23/2016</td>
<td>Harvest</td>
<td>Tony</td>
<td></td>
<td>30-Apr Weed/Harvest Family</td>
</tr>
<tr>
<td>5-May</td>
<td>Harvest/Water</td>
<td>Tony</td>
<td>Drip</td>
<td>3 hr</td>
</tr>
<tr>
<td>10-May</td>
<td>Harvest</td>
<td>Tony</td>
<td></td>
<td>Last Harvest</td>
</tr>
</tbody>
</table>

***Due to the warm weather in late April and early May the lettuce started to bolt real early

<table>
<thead>
<tr>
<th>Date</th>
<th>Operation</th>
<th>Operator</th>
<th>Equip</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-May</td>
<td>Flail Mowed all Tunnels</td>
<td>Tony</td>
<td>BCS</td>
<td>Knocking all of the overgrown vegetation down</td>
</tr>
</tbody>
</table>
Kentucky ORGANIC Hemp Co-op

- Why a Co-op?
- Secretive Industry
- Crazy “Wild West” business
- Tough going to small 1-10ac growers
- Credit availability
- Seed, clone sourcing
- Finally…. “P----- Off”
Kentucky ORGANIC Hemp Co-op

- Organized in 2019
- Small
- 75% of Members getting certified for the first time in 2019
- Support
- Open Flow of Information
- SOIL to OIL Certified ORGANIC
- Better Income
National Organic Program (NOP)

Other Resources

- Oregon Tilth
  https://tilth.org/
- OAK
  https://www.oak-ky.org/
- ATTRA
  https://attra.ncat.org/
- Moses (Midwest Organic and Sustainable Education Services)
  https://mosesorganic.org/
- Rodale
  https://rodaleinstitute.org/
The Gateway Crop

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UPCOMING WEBINARS

TILTH.ORG/EVENTS

JOIN THE CONVERSATION

#TILTHNATION