

Midwestern Hemp Database Project



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Data Collection Protocols

ACT Laboratories

Thank you for your interest in participating in the Midwestern Hemp Database Project. The following instructions apply only to participants submitting samples to ACT Laboratories.

This project will keep detailed records. To participate in this study, specific instructions for floral sampling and shipping must be followed. The requested agronomic information will be entered into an online survey, which will be issued later in the growing season.

Collected sample information will be made public via a data sharing tool, known as the [Midwestern Hemp Database Project](#). Any identifying personal information will remain confidential.

Hemp Plant Sampling Protocols

Floral samples *will be collected from the same plants* at multiple time points throughout flowering to test for cannabinoid accumulation. To participate in this study, there will be at **minimum two time aggregate samples taken per variety, per location**. As part of the partnership with ACT Laboratories, cannabinoid analysis will only cost \$35 per sample per location. There is no upper limit to the number of samples that can be submitted per variety.

Sampling and Shipping Instructions

This video from Rock River Laboratory, demonstrates [proper sampling procedures](#). Samples that do not follow this protocol will not be submitted and are not eligible for discounts.

Sampling may begin two weeks after the flowering period begins.

1. Identify the top third of a hemp plant. All samples must be collected from the flowering tops.

2. Using shears or scissors, cut the top 5-8 inches from the *main stem* (includes leaves and flowers), *terminal bud* (at the end of a stem), or *central cola* (cut stem that could develop into a bud) of the flowering top.
3. Place the flowers in the paper bag and write the sample name clearly on the outside. Do not keep the sample in a plastic bag.
4. Repeat steps 1-3 on other plants until three flowers are collected for a complete sample.
5. Fill out the [Hemp COC & Instructions](#) clearly and completely. Affix the form to the sample bag using tape or a stapler.
6. **Shipping:** Review [shipping instructions for industrial hemp](#) to ensure proper transportation of plant materials. Deliver the sample to ACT laboratories location or ship it overnight through the U.S. Postal Service:

ACT Laboratories Inc.
2137 S. Main St.
Morton, IL 61550



Source: [USDA Sampling Guidelines for Hemp](#)

Data Collection Protocols

The same three plants used for cannabinoid profiling will also be used to gather agronomic data online throughout the growing season.

- Intended Use (High Quality Flower or Biomass)
- Seed Start Date (if using transplants)
- Planting/Transplanting Date (XX-XX-XXXX)
- Plant population (#plants/acre)
- Plant Spacing (feet) and Row Spacing (feet)
- Previous Crop/Cover Crop

Data Collection Protocols Cont.

- Weed Control Methods
- Plant Height (inches) will be recorded at maturity. The tallest point of each of the plants sampled for cannabinoids (3 per cultivar) shall be measured and the average height will be taken.
- Plant Width (inches) will be recorded at maturity. The widest point of each of the plants sampled for cannabinoids (3 per cultivar) shall be measured and the average width will be taken.
- Flowering Onset Date. The date at which the first plant in the field has visibly initiated terminal flowering.
- 50% Flowering Date, the date when half of the plants in the field have visibly initiated terminal flowering. Identified when half of the plants show extruding stigma at the top inflorescence of the plant.
- Final Flowering Date.
- **Plant Yield: floral and biomass.** Three representative plants will be cut by hand just below the lowest branch. Plants will then be removed to a drying facility and hung for complete drying. Dried floral structures will be stripped of all stems by hand or with simple equipment to remove floral structures for all three plants per cultivar. The resulting biomass will include some leaf material. Plant biomass for both floral structures and all remaining biomass (stems, stalk, some leaves, minor amounts of floral structures) will be weighed separately. This is important to larger operations that use whole-plant mechanical harvested) will be weighed separately.



Source: Dr. Shelby Ellison,
University of Wisconsin-Madison

Information Use and Storage

Private information, including name, address, and license number, **will not be in the public database**. It will be used only for the purposes for which it was provided, and it will not be shared with another entity, except as prescribed by law. Information such as seed source, variety, planting date, cannabinoid production, and yield, will be entered into the public database.

All collected information becomes public record that may be subject to inspection and copying by the public, unless an exemption in law exists.

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For More Information

Contact Phillip Alberti at palberti@illinois.edu or (217) 300-7392.

Project Collaborators

Shelby Ellison, University of Wisconsin-Madison
James Dedecker, Michigan State University Extension
Marguerite Boldt, Purdue University Extension
Bob Pearce, University of Kentucky
James Morris, Ohio State University
Esther Shekinah, Micheal Fields Agricultural Institute
Rock River Laboratory LLC, Dustin Sawyer & Scott Fleming
ACT Laboratories, Amber Middlebrook



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Data Collection Protocols

KAS Laboratories

Thank you for your interest in participating in the Midwestern Hemp Database Project. The following instructions apply only to participants submitting samples to **Kennebec Analytical Services (KAS)** Laboratories.

This project will keep detailed records. To participate in this study, specific instructions for floral sampling and shipping must be followed. The requested agronomic information will be entered into an online survey, which will be issued later in the growing season.

Collected sample information will be made public via a data sharing tool, known as the [Midwestern Hemp Database Project](#). Any identifying personal information will remain confidential.

Hemp Plant Sampling Protocols

Floral samples *will be collected from the same plants* at multiple time points throughout flowering to test for cannabinoid accumulation. To participate in this study, there will be at **minimum two time aggregate samples taken per variety, per location**. As part of the partnership with ACT Laboratories, cannabinoid analysis will only cost \$35 per sample per location. There is no upper limit to the number of samples that can be submitted per variety.

Sampling and Shipping Instructions

This video from Rock River Laboratory, demonstrates [proper sampling procedures](#). Samples that do not follow this protocol will not be submitted and are not eligible for discounts. Sampling may begin two weeks after the flowering period begins.

1. Identify the top third of a hemp plant.

All samples must be collected from the flowering tops.

2. Using shears or scissors, cut the top 5-8 inches from the *main stem* (includes leaves and flowers), *terminal bud* (at the end of a stem), or *central cola* (cut stem that could develop into a bud) of the flowering top.
3. Place the flowers in the paper bag and write the sample name clearly on the outside. Do not keep the sample in a plastic bag.
4. Repeat steps 1-3 on other plants until three flowers are collected for a complete sample.
5. Fill out the [Hemp Sample Submission Form](#) clearly and completely. Affix the form to the sample bag using tape or a stapler.
6. **Shipping:** Review [shipping instructions for industrial hemp](#) to ensure proper transportation of plant materials. Deliver the sample to **KAS** laboratories location or ship it overnight through the U.S. Postal Service:



Source: [USDA Sampling Guidelines for Hemp](#)

Kennebec Analytical Services
3800 S. 6th St., STE 1
Lincoln, NE 68502-4307

Data Collection Protocols

The same three plants used for cannabinoid profiling will also be used to gather agronomic data online throughout the growing season.

- Intended Use (High Quality Flower or Biomass)
- Seed Start Date (if using transplants)
- Planting/Transplanting Date (XX-XX-XXXX)
- Plant population (#plants/acre)
- Plant Spacing (feet) and Row Spacing (feet)
- Previous Crop/Cover Crop

Data Collection Protocols Cont.

- Weed Control Methods
- Plant Height (inches) will be recorded at maturity. The tallest point of each of the plants sampled for cannabinoids (3 per cultivar) shall be measured and the average height will be taken.
- Plant Width (inches) will be recorded at maturity. The widest point of each of the plants sampled for cannabinoids (3 per cultivar) shall be measured and the average width will be taken.
- Flowering Onset Date. The date at which the first plant in the field has visibly initiated terminal flowering.
- 50% Flowering Date, the date when half of the plants in the field have visibly initiated terminal flowering. Identified when half of the plants show extruding stigma at the top inflorescence of the plant.
- Final Flowering Date.
- **Plant Yield: floral and biomass.** Three representative plants will be cut by hand just below the lowest branch. Plants will then be removed to a drying facility and hung for complete drying. Dried floral structures will be stripped of all stems by hand or with simple equipment to remove floral structures for all three plants per cultivar. The resulting biomass will include some leaf material. Plant biomass for both floral structures and all remaining biomass (stems, stalk, some leaves, minor amounts of floral structures) will be weighed separately. This is important to larger operations that use whole-plant mechanical harvested) will be weighed separately.



Source: Dr. Shelby Ellison,
University of Wisconsin-Madison

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Rock River Laboratory LLC, Dustin Sawyer & Scott Fleming
ACT Laboratories, Amber Middlebrook
Kennebec Analytical Services, Concetta DiRusso



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Data Collection Protocols

Rock River Laboratory Inc.

Thank you for your interest in participating in the Midwestern Hemp Database Project. The following instructions apply only to participants submitting samples to Rock River Laboratory, Inc.

This project will keep detailed records. To participate in this study, specific instructions for floral sampling and shipping must be followed. The requested agronomic information will be entered into an online survey, which will be issued later in the growing season.

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Hemp Plant Sampling Protocols

Floral samples *will be collected from the same plants* at multiple time points throughout flowering to test for cannabinoid accumulation. To participate in this study, there will be at **minimum two time aggregate samples taken per variety, per location**. As part of the partnership with Rock River Laboratories, cannabinoid analysis will only cost \$35 per sample per location. There is no upper limit to the number of samples that can be submitted per variety.

Review the [Plant Tissue Plus App video](#) to get your account setup finalized. If you need assistance, email Scott Fleming at scott_fleming@rockriverlab.com.

Sampling and Shipping Instructions

This video from Rock River Laboratory, demonstrates [proper sampling procedures](#). Samples that do not follow this protocol will not be submitted and are not eligible for discounts.

Sampling may begin two weeks after the flowering period begins.



Source: [USDA Sampling Guidelines for Hemp](#)

1. Identify the top third of a hemp plant. All samples must be collected from the flowering tops.
2. Using shears or scissors, cut the top 5-8 inches from the *main stem* (includes leaves and flowers), *terminal bud* (at the end of a stem), or *central cola* (cut stem that could develop into a bud) of the flowering top.
3. Place the flowers in the paper bag and write the sample name clearly on the outside. Do not keep the sample in a plastic bag.
4. Repeat steps 1-3 on other plants until three flowers are collected for a complete sample.
5. Fill out the [Hemp Potency Analysis Request Form](#) and submit it with the sample.
6. **Shipping:** Review [shipping instructions for industrial hemp](#). Ship samples overnight to:
Rock River Laboratory
710 Commerce Dr.
Watertown, WI 53094

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- Intended Use (High Quality Flower or Biomass)
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Data Collection Protocols Cont.

- Plant population (#plants/acre)
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- Previous Crop/Cover Crop
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