**Rutgers Agricultural Research and Extension**

**The New Use Agriculture and Natural Products Program (NUANPP)**

**Hop Analysis Submission Form**

Our lab accepts and processes hop samples Monday - Friday from 9am - 5pm (samples arriving on Saturday or Sunday will not be received/processed until Monday). As of now we will accept up to *5 samples* (or varieties) for bittering acid content and five samples for essential oil yield/content. All samples are prepared and analyzed according to standardized American Society for Brewing Chemists (ASBC) protocols. Presently, we anticipate a turn around time of 5 business days. *We ask that all samples be dried to 8-10% moisture content.* Please read carefully additional requirements and explanation of analyses below:

Bittering Acids Content:

* A minimum of 1.5 ounces/dried hop cones required for screen;
* Results will include the percent alpha and beta acids (cohumulone, n- + adhumulone, colupulone, and n- + ad-lupulone) by weight.

Essential oil (volatiles) Yield/Content:

* A minimum of 5 ounces of additional dried hop cones required for aroma analysis;
* Results will provide a total essential oil yield by weight (mL oil/gram hop cone) and relative percentage of the actual major aroma volatiles (>10%).
* **Sample Information** (required)

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| --- | --- | --- | --- | --- |
| Variety or  Sample ID | Mass (ounces) | Bittering Acids  (check box) | Essential Oils  (check box) | Lab Sample ID |
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| **Grower Contact Information** | **Grower Address** |
| Farm Name | Street |
| Contact Name | City |
| Phone | State |
| Email  Fax | Zip Code |

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| **Please label samples as follows:** | **Please send samples to the following address** |
| 'Contact Name' | Robert Pyne/Megan Muehlbauer |
| 'Variety or Sample ID' | Re: NUANPP Hops Project |
| 'Harvest Date' | Foran Hall, 2nd Floor Mailroom |
| 'Harvest Moisture Content' | 59 Dudley Road  New Brunswick, NJ 08901  ADD FULL ADDRESS- ROAD, city, state!!! |

**Please email in advance:**

Robert Pyne ([rpyne@scarletmail.rutgers.edu](mailto:rpyne@scarletmail.rutgers.edu" \t "_blank)) and/or Megan Muehlbauer (meganmu@[scarletmail.rutgers.edu](http://scarletmail.rutgers.edu/" \t "_blank)) the number of samples and when they were sent.

We will confirm receipt of your samples upon arrival.

By sending your samples to us, you also are aware and agree to all the points below:

1. We cannot guarantee results within a time frame just in case of emergency’s with equipment or personnel;
2. The results that will be provided reflect only what we are analyzing not your entire field or all your varieties. Therefore, be careful in how and what your sampling to ensure it reflects the larger hop crop.
3. You agree that we can use the results (without identification to you and/or your commercial operation) to collate with other samples for possible extension and/or research publications and for reporting purposes to the USDA.

Should you have further questions or need additional samples to be analyzed, then let us know and we can determine work flow load and see if alternative arrangements can be arranged. There may be service fees charged for additional samples. THANK YOU!!