

Referee Sample

DISCUSSION

Original Draft

The AAPFCO Laboratory Services Committee recommends that when a sample is requested to be sent to a 3rd party laboratory for analysis, that certain procedures are followed. To provide technical advice to both AAPFCO members & stakeholders, & to ensure that the analytical result obtained for a nutrient is unbiased & accurate, we make the following recommendations:

- The sample is sent to 2 3rd party labs agreed upon by the State & stakeholder
- The sample is sent in duplicates
- A QRM of similar concentration & matrix to the requested analyte in the sample is sent with the duplicate samples
- The analytical method used by the 3rd party lab is appropriate for the analyte at the specified concentration & matrix

The LSC makes the above recommendations from sound science based procedures set forth in a laboratory following good laboratory practices. We also understand & support the State's acceptance of these policies as guidance for the State to make regulatory decisions.

WG 1 Edits to Draft

The AAPFCO Laboratory Services Committee recommends that when a sample is requested to be sent to a 3rd party laboratory for analysis, that certain procedures are followed. To provide technical advice to both AAPFCO members & stakeholders, & to ensure that the analytical result obtained for a nutrient is unbiased & accurate, we make the following recommendations:

- The sample is sent to 2 3rd party labs agreed upon by the State & stakeholder
- The sample is sent in duplicates
- A QRM of similar concentration & matrix to the requested analyte in the sample is sent with the duplicate samples
- The analytical method used by the 3rd party lab is appropriate for the analyte at the specified concentration & matrix
- **Send both ground & unground portions**
- **Send all 3 samples as unknown concentrations**
- **Examine unground sample for contaminants**

The LSC makes the above recommendations from sound science based procedures set forth in a laboratory following good laboratory practices. We also understand & support the State's acceptance of these policies as guidance for the State to make regulatory decisions.

WG 2 Edits to Draft

The AAPFCO Laboratory Services Committee recommends that when a sample is requested to be sent to a 3rd party laboratory for analysis, that certain procedures are followed. To provide technical advice to both AAPFCO members & stakeholders, & to ensure that the analytical result obtained for a nutrient is unbiased & accurate, we make the following recommendations:

- The sample is sent to 3rd party lab agreed upon by the State & stakeholder **which is a participant of the Magruder Program & have acceptable z-scores for the analyte in question**
- The sample is sent in duplicates
- A QRM of similar concentration & matrix to the requested analyte in the sample is sent with the duplicate samples **if none available, send portion of Magruder sample previously analyzed**
- The analytical method used by the 3rd party lab is appropriate for the analyte at the specified concentration & matrix **and should be AOAC method where applicable or other peer reviewed, validated**
- **Send both ground & unground portions**

The LSC makes the above recommendations from sound science based procedures set forth in a laboratory following good laboratory practices. We also understand & support the State's acceptance of these policies as guidance for the State to make regulatory decisions.

WG3 Edits to Draft

The AAPFCO Laboratory Services Committee recommends that when a sample is requested to be sent to a 3rd party laboratory for analysis, that certain procedures are followed. To provide technical advice to both AAPFCO members & stakeholders, & to ensure that the analytical result obtained for a nutrient is unbiased & accurate, we make the following recommendations:

- The sample is sent to **1** 3rd party lab. **If the result differs significantly from the original result, then the sample may be sent to a second 3rd party lab.**
- **The 3rd party lab should be a participant of the Magruder program & have acceptable z-scores for the analyte in question.**
- The **ground** sample is sent in duplicates
- A QRM (**e.g. Magruder or NIST standard, etc.**) of similar concentration **& if possible** matrix to the requested analyte in the sample is sent with the duplicate samples
- The analytical method used by the 3rd party lab is appropriate for the analyte at the specified concentration & matrix—**should be AOAC where applicable or other well validated**

The LSC makes the above recommendations from sound science based procedures set forth in a laboratory following good laboratory practices. We also understand & support the State's acceptance of these policies as guidance for the State to make regulatory decisions.

Practicalities to Consider

- Time considerations of 1 vs 2 labs
 - More time efficient to send to 2 labs at once, then get result back, and send out again
 - In KY, let industry choose one (at their cost) & we send to a state lab (that we know performs well)
 - Take as long as 3 months from state labs

- Money/Effort considerations of duplicates—1 sample turns into 5 or 10!
 - Ground, Unground, Retained Unground
 - High QRM, Low QRM
 - 10 samples!
- Can state labs ask other states that “volunteer” to analyze sample for their z-scores?
- We don't mind, but some states shut down their fertilizer lab depending on time of year
- 10 samples at ~\$120 = \$1200!!!
- Boss NOT happy and may not pay...at least mine

Next Steps

- Move from recommending “Ideal” Expectations to “Minimum” Expectations?
- Keep the workgroup
- If we don't have practical guidelines, we won't effectively advise anyone, and just like methods, the guidelines won't be followed

Conclusions

- Thanks to the working group:
 - Sanford Seigel
 - Toby Primbs
 - Hugh Rodriguez
 - Teresa Grant
 - Patty Lucas
- Any shortcomings of the group are mine and mine alone
- Suggestions?
- Define practical elements of guidelines?