

**Magruder Committee Minutes**  
**July 29, 2021 – Virtual Meeting**

Meeting called to order at 12:30 pm EST by Frank Sikora

Attendance – ~163

**Welcome, Introductions, Agenda Review and Approval** – Frank Sikora

*Agenda - Motion to approve agenda Sharon Webb, seconded by James Bartos - motion approved*

**Approval of Last Meetings Minutes** – Frank/Patty

*Minutes – Motion to approve by Sharon Webb, seconded by James Bartos – motion approved*

**Treasurer’s report** – Jamey Johnson

Statement is through June 2021. Total assets are \$148,614.73. Income was \$70,722.69. Expenses were \$59,157.59 and net income was \$11,565.10.

Discussion: Discussion regarding tracking new scheme income. The invoices will be broken down into specific schemes/programs (for income received). Sharon asked if we are going to move money around to pay for and track new expenses for all four programs. Expense will be kept as is. James asked if we covered the costs of the forum or went negative. Expenses were all covered and the balance remaining was \$5,184.37.

Motion to approve Treasurer’s report – Sharon Webb, seconded by Sally Flowers – Motion approved

**Administration Update** – Frank Sikora

See Powerpoint

Frank shared the number of labs reporting graph from 2014 to 2021 as well as the number of active labs from 2017 to 2021. There are currently 151 participating labs with 23 unpaid (all international labs).

We are planning to receive payment prior to shipping samples for 2022. There are 43 US public (regulatory), 37 US private (23 service and 10 manufacturer) and 71 international labs in the program.

**Changes happening in 2022** – Frank Sikora/Job

See Powerpoints

There will be a lot of changes in the program for 2022. Offering different schemes; Frank presented the proposal at the winter meeting. Some additional changes were made and the schemes of NPK were proposed. Home page on Magruder website contains an explanation of the schemes (regular, N, P, K) with applicable costs. Website also contains links for laboratories to fill out the survey with which schemes they would like to participate in. Frank gave a walk-through demonstration of the survey.

Frank shared a graph of labs who have signed up so far. Current total is 75 with 63 for regular scheme, 12 N, 18 P and 11 K. The number of labs indicating they would sign up were 33 N, 37 P, 25 K. We are collaborating with AFPC on who will be preparing the P samples.

Number of Magruder Labs is 70 with 5 non-Magruder labs.

- a. New N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O samples schemes
- b. Early billing
- c. Name change from “Check Sample” to “Proficiency Testing”
- d. Advertising (brochure, one-pager, etc.)
- e. Scheduled samples

Will there be a minimum number of labs that need to be signed up before beginning? Frank said he is optimistic that we will come close to the projected amounts. Bill Hall said we can call some of the labs that indicated they may participate to discuss with them. He also said there will be additional labs (especially on the manufacturer side) when the word gets out.

James asked when the first scheme sample would go out. Frank said February 2022. Andy Crawford indicated that these things need to start to grow and each year you get more people as they start to know about them.

See Powerpoint “Proposal for Providing Options for Sample Schemes”

Frank shared a chart of the sample schemes with the timeline for the changes as well as a chart of the various sample schemes by month. Andy Crawford prepared new logo icons for the various schemes (to use for the lab reports). He asked if anyone had any changes to let him know soon. Michael Hojjatie will send a picture of a liquid to Frank.

The name change of the program from “Check Sample” to “Proficiency Testing” will be put on the websites. Sharon said the websites looked nice.

Scheduled samples –

Frank said that Job Fugice is doing a good job of scheduling and tracking samples. Discussed upcoming samples. Asked for ideas for program samples coming up. Bill said that at some point in time, need to have a second sample sent for a high level micro mix to fill in gaps Sharon is missing. In the 10, 20, 30 % range. Frank asked if it would be better to make up two and Bill indicated he would. James Bartos said that Dave Benefield may be able to come up with a targeted micro-nutrient blend. Bill was also thinking about contaminants rather than nutrients. Has worked with him before. James has a long term P suggestion for WEP in some organic fertilizers but it would be nice to see how many labs would be interested. Bill asked if there is a copy of that method. James said we may be able to put something on the Magruder website about how these should be prepped and tested. Bill said that a lot of the methods have not been tested on organics, need to look at whether the colorimetric methods may have a bias. These new products were never in the original studies. Another possible P sample is volcanic ash (with definition accepted).

Chat from session:

Rebecca Moseley– Will there be a follow up reminder email sent to labs who haven’t responded to the survey who normally participate? Frank said yes.

Regarding logos:

Michael Hojjatie – They need to show liquids as well!

Sally Flowers – Yes, they look professional, thanks.

**Magruder Newsletter** – Frank Sikora

Frank shared an overview of the draft and said the Summer 2021 Edition is coming out a little later than he wanted. Thanked Sally and others for putting the information together so nicely. Showed the upcoming meetings information section. Frank asked if there are any other meetings for this fall, to send to Frank for inclusion.

Andy Crawford asked if the 2022 Winter meeting would be in Mobile, AL or virtual. Frank said it depends. Eddie said the intent is that it will be in person in Mobile.

Chat:

Ed Thomas – For all of those interested in the ISO Business Plan, TFI has taken the lead in making major revisions to the document. The comment summaries will be available in the next two weeks. You can let me know if you are interested in reviewing the revisions. [ethomas@tfi.org](mailto:ethomas@tfi.org)

**QRM samples for sale** – Frank Sikora/Sharon Webb

See Powerpoint

Frank said we’ve updated the flow for requesting the QRM. Sharon is keeping track of all the samples at the KY department and processes requests. Frank shared the Quality Reference Material Request form and Invoice form. Jamey said this is a good improvement over the previous form. Income from QRM samples is up from previous years. Sharon wrote an article in the newsletter to explain the use of them. An excel file was also shared to show the amount available for each (label/SOA/COA are also available).

Bill asked if we will include the N, P, K sample reserves with these samples? Frank said yes but they may do an excel file for each. There was additional discussion regarding quantities available and needed.

### **Update on ICP P/K and microwave nutrient/non-nutrient methods in AOAC and ISO**

See Powerpoint

James – We did have the method submitted to ISO (used Magruder data). Passed by P members but failed by O members; EU wanted more than US extraction; data variability was very high; Magruder data – not as biased (members not selected); more work to do there; plan to go the AOAC route in the next few months

Sharon – Been doing data mining and looking at Horwitz; getting info from Magruder; there are some gaps for one or two elements (nutritives) and a few non-nutritives that are not as high as they could be. Bill is working on this too.

See James's Powerpoint – Process

Shared one Good Example – Magruder Cu Data vs. IA (Reg Labs – AAS)- input info

Shared one Bad Example – Magruder Zn Data vs. IA (Reg Labs – ICP)- input info

### **Investigational Allowance, Measurement Uncertainty, and Recognizing Bad Apples**

See Powerpoint Measurement Uncertainty – Frank

How MU may relate to IA

Shared USDA Final Rule for the Domestic Production of Hemp regarding MU and example of how it is applied (eg.  $0.36 \pm 0.08\%$  Total THC is 0.28% to 0.44%)

Frank wanted to share this for information. Said it will be good to discuss at some point. Labs who get ISO accredited have to do this.

Provided helpful reference “Handbook for Calculation of MU in Environmental Labs” (easy to use)

Frank thanked James for his presentation and said there is a lot of work to be done for IAs at the higher concentration.

Bill asked if this would be a good forum topic where there would be ample time. Frank said yes, that would be great for the MF agenda.

### **Adjourn**

Motion to adjourn by James Bartos with second by Maryam Khosravifard. Motion approved.

Magruder committee meeting adjourned at 2:03 pm EST

### **Magruder Committee Minutes – 10/5/2021**

Attendees: Frank Sikora, Job Fugice, Hugh Rodrigues, Andy Crawford, Sharon Webb, MMH, Jamey Johnson, James Bartos, Bill Hall, Bob Able, Maryam Khosravifard, Michael Hojattie

#### **AGENDA**

1. Status on 2021 enrollees
  - a. 132 paid
  - b. 18 unpaid (sample shipments stopped)
2. Update on 2022 enrollees and payments
3. Sample schedule for 2022
4. Update on reports for 2022

#### *Status of 2021 enrollees*

132 paid, 18 unpaid (sample shipments stopped)

#### *Update on 2022 enrollees and payments*

Frank shared an update on where we are with respect to the 2022 sample scheme.

See graph showing number of labs in various sample schemes

149 – regular scheme

28 N, 36 P and 24 K (compared with 33, 37 and 25 who said they would enroll)

For NPK, Andy indicated we only get about 60% participation; concern about whether we will have enough labs

Job asked if there is a way we can send them out at the same time as regular scheme samples (to use as another source); statistics would be done separately. Plan to do in 3 cases (NPK) to be run together with the regular program. Andy indicated that NPK will grow over time.

Bill was wondering how many of the NPK sample labs are international labs? Frank - Good to know for marketing. Hugh said it would be good to know how its broken out for producers vs. commercial labs. If Mosaic has 10 labs participating for the P program vs. overall labs participating.

Sharon asked if the NPK program will be running the minerals or just NPK. Frank said they can run any program available. Hugh said they will likely run the metals as they are required for international shipping.

James said as far as the scheme samples, may be candidates to send them all out at the same time. AFPC is doing that. Maybe able to send them out in smaller groups. Would be an advantage for international. Frank asked if it would be confusing for labs to get them all together. But, it would allow for savings on shipping. Will have to get with Kevin this fall for getting the samples. Bill said it would work better for phosphates as they tend to crystallize.

Frank asked Jamey about who all has paid so far. Total invoiced is \$82,283 vs paid is \$22,365 (due date is 12/31/2021). Compared to last 3 fiscal years, there is an increase if we get payment on all 3 schemes. Jamey said there are 54 that have paid. Magruder Subscription Income \$52,910 (19/20), \$60,035 (18/19) and \$49,825 (17/18). For Magruder Expenses (see chart)

James asked if the invoice sent to the lab was for what they said they'd enroll for or were the choices listed for them to select? Frank said invoices were based on what they had requested to participate in. Hugh asked when the invoices went out as they had not received any. Frank said the end of August. Discussed need to set up a mechanism in order to ensure invoices have been received.

Bill asked if we know who the 2-3 labs in each program are that said they planned to attend but hadn't yet. They may be more responsive to a reminder. Frank said it would be helpful to reach out to them. Bill asked if there is another date that we should check in on this again. Frank said early next month (we can meet the first week of November to see where we are).

### *Sample schedule for 2022*

Frank showed an Excel spreadsheet that contains all of the information on the samples that go out (see spreadsheet). Frank also shared the additional information on the spreadsheet for the schemes/description and shipping information. If anyone has any suggestions or contacts for contacts for samples, let Job know.

Hugh suggested another contact for polymer coated product. Polymer coated materials need to be well rounded for sample prep. Hugh also indicated some selenium may be coming from polymer coat.

Discussion of grinding challenges for coated products - Recommend sending a small sample to Bob to test prior to proceeding. Bob was wondering whether we have a particular particle size it has to be. Bob doesn't measure the size after grinding. He typically grinds finer if it has particulates after initial grind. Review AOAC for 2 grinding sizes. James said if we see variability (from nitrogen which is typically very stable), it may be coming from the physical sample itself.

Discussion about samples needed to fill data gaps. Sharon indicated that she would work on the spreadsheet shortly. December/January timeframe for high micro or manufactured with non-nutritive. James mentioned maybe adding some sulfur, magnesium sulfate, high copper, high magnesium, products. Sharon suggested a sample with chlorine in it. Patty said that would be helpful.

### *Update on reports for 2022*

Timeline is mid February for first report from Andy. Frank and Andy have been working to set up for new schemes. Andy sent some examples for new headers for reports (see examples). Andy asked if it could be called the ‘Magruder Fertilizer PT Program’ instead of ‘Magruder Fertilizer Proficiency Testing Program’. Shows shared samples with “sample doubles with x scheme” verbiage. Sharon said she likes the new design. 😊

Next meeting is November 3 at 3:00 pm.

**Magruder Committee Minutes – 11/3/2021**

Attendees: Frank Sikora, Job Fugice, Bob Able, David Collier, Andy Crawford, Bill Hall, Michael Hojattie, Jamey Johnson, Patty Lucas, Matt Pearson, Scott Roalofs, Hugh Rodrigues, Sharon Webb

1. *Treasurer Update* – Processed all of Magruder 2022 subscriptions; Jamey shared he has resigned and the group thanked him for his service.

2. *Status on 2021 enrollees*

c. 134 paid

d. 17 unpaid (sample shipments stopped)

3. *Update on 2022 enrollees and payments*

	#Regular	#N	#P	#K
# enrolled	149	28	36	24
# paid	39	16	18	14
% paid	26	57	50	58

a. *Due date of Dec. 1*

b. *First 2022 sample shipped early Dec.*

c. *Notice reminders to unpaid labs (change contact info to Matt)*

4. *Sample schedule for 2022* (see spreadsheet)

a. *Job and Frank meeting with Kevin Sapp (AFPC) on Friday.*

Job discussed that the product Matt and James are sending has a high iron content (16%). There was also discussion regarding the P scheme and whether it would be more attractive to participants with more varied sample types. May be something to think about for 2023.

Plan to talk with Kevin (AFPC) about reimbursement on Friday to compensate for work in preparing the samples. Would he still be ok with just the \$50.

Discussion on data gaps – Bill to check with Sharon to see if there are any more. Sharon is to send Bill information before Thanksgiving. Bill will be supplying the March sample. He had some questions regarding whether we are looking at non-nutritives and will get something together for that.

5. *Winter 2022 newsletter*

a. *Chairman notes (Frank)*

b. *Evaluating Lab Performance with Magruder Data (Frank)*

c. *Using Control Charts in Quality Assurance (Sharon)*

d. *New Sample Schemes and info for new labs (Frank)*

i. *Number of labs enrolled*

ii. *Present schedule for samples*

iii. *Point out training material on web for using data reporting website and explanation of reports.*

- iv. Explain available method codes
- e. Magruder Committee Roster

The newsletter is due in December. Folks are to send Frank information to include on upcoming meetings. Meetings mentioned included AOAC Midyear in March (ERP), AAPFCO Winter Annual and Methods Forum. Also discussed adding new information to point folks to where information is on the website.

Bill indicated that some folks are very familiar with data mining; but need to keep reminding folks how valuable this information is. Include value to regulatory and labs (industry and state). Andy to review.

### Magruder Committee Minutes – 12/14/2021

Attendees: Frank Sikora, James Bartos, David Collier, Andy Crawford, Bill Hall, Michael Hojjatie, Maryam Khosravifard, Bob Kieffer, Patty Lucas, Matt Pearson, Sharon Webb

#### 1. Update on 2022 enrollees and payments

As of 12/13/21				
TOTAL: 68 unpaid, 103 paid, 60% have paid				
scheme count:				
	#Regular	#N	#P	#K
# enrolled	146	30	39	24
# paid	88	24	31	20
% paid	60	80	79	83

- a. Due date of Dec. 1
- b. First 2022 sample has been shipped with notice to unpaid labs
- c. Invoices sent to unpaid labs 12/13
- d. Giving labs grace period of 90 days, payment expected by Mar. 1

*Frank provided an update. Said Matt has done a great job of setting up Quickbooks for labs to pay. Relayed info for who has paid; which Frank enters into his spreadsheet. Due date of invoices is December 1. March 1 will be the shipment stop date. But, will send 'back' samples if unpaid labs pay. We are having good enrollment on NPK schemes. Having the ability to pay via Quickbooks for international labs will help. Matt says he is receiving positive feedback for online payment. Sharon said this will change how we handle the workflow for QRM; will talk with Matt this next week. James asked if the feed program had something similar and wondered if this would benefit them. Feed uses FASS. Frank would like to explore having FASS receiving payments next year as they invoice the labs. Frank discussed the Access database he designed and indicated he would like to transition to FASS to secure the program for years to come. Matt shared that he and Steve had discussed having a "storefront" application as well to allow everyone to access. Would like to explore; may need to cover the cost with fee increases.*

#### 2. Sample schedule for 2022

- a. Review excel spreadsheet.
- b. Job and Frank met with Kevin Sapp (AFPC) on Friday, 11/5/21.  
*Met to discuss preparing/providing samples (details below). Bill asked if these were shared with regular Magruder program. Frank said MAP is. Bob will prepare the shared samples. David Collier said he has 15 buckets of phosphate rock he can provide next year. Bill said that maybe Bob could grind and then mix in.*

- c. As a follow up to our discussion last Friday, just wanted to make sure we were on the same page with our agreement that AFPC can provide 46 unlabelled packets of DAP (125 g/packet), 46 unlabelled packets of P rock (125 g/packet), and 50 pounds of MAP to the Magruder 2022 program for \$1380. Samples to be delivered to Bob Kieffer at Able Labs in early January.

*Status of samples (see Sample Schedule spreadsheet)*

*Bill is planning to catch up on the samples by the first of the year and send them all at once to Bob. Also, need to get with Sharon to fill the data gaps (to help with the design of the fabricated samples he's working on). Bill will use info from Sharon to fabricate/supply samples with his name listed (and others if needed).*

*Frank asked Bill to get with Job to discuss filling in some of the blank areas in the Sample Schedule. James asked if Bill is targeting a concentration, and asked is it worth testing some of these in advance to determine if there is too much selenium (for example) to amend if needed. For non-nutritives, will probably have to add some things to it. Also, look at some historic information. If someone has something specific they'd like to see, let Bill know. Need to look at filling gaps with NPK as well; not just metals. Three of them are shared with regular scheme.*

*Not on agenda but Frank wanted to share an update on the website for 2022 for regular scheme and NPK scheme (for publicly available reports). Frank shared website live. The description of the fertilizer is in the right-hand column. James asked the difference between 'soil supplement' and 'fertilizer'? Frank shared the label; thinks that is how the company identifies it. Bill asked how we decided to handle the SDS; if someone clicks on it, does it show the suppliers name? Bob said they take some info off but leave the manufacturer to know who to contact.*

*Discussion on Current Year Samples, Reports and Data page - Could put note in right-hand column to indicate it's a shared sample. Sharon asked if the soil supplement is for solubility. Bill said we need to provide info on the benefits of the Magruder program in the presentations during the Method Forum. Frank asked if he should give a 15-20 minute update on Magruder during the forum? Yes, and also there is a lot of data out there that Andy has put together (located on the website). Bill said maybe someone could give a testimonial. Sharon has looked at it and plans on updating it for the February meeting. Frank asked Andy if he has thought about how to structure the different schemes? Andy said not yet; doesn't see any reason the participants in the other schemes can't see the others. One place he's had to separate it out is in the control charts. Data for control charts is where the data will be separated out. Haven't done this in the website yet. Frank said the control charts are there for labs to evaluate how they compare over time. Andy said these are the better way to look at your data. Bill said he doesn't know how many people are new to the program but for those in the business of monitoring production, the control chart data is valuable to have. We could promote the benefits at the forum.*

3. Winter 2022 newsletter, due date for articles 12/15/21
  - a. Chairman notes (Frank)
  - b. Evaluating Lab Performance with Magruder Data (Frank)
  - c. Using Control Charts in Quality Assurance (Sharon)
  - d. New Sample Schemes and info for new labs (Frank)
    - i. Number of labs enrolled
    - ii. Present schedule for samples
    - iii. Point out training material on web for using data reporting website and explanation of reports.
    - iv. Explain available method codes

- e. New treasurer
- f. Update on lab payments and emphasize March 1 deadline
- g. Magruder Committee Roster

*Frank said the control charts and their benefits will be discussed in the next newsletter. Also, data entry for new labs. James said he sent an email earlier to one of the vendors; and asked if we should consider including vendors and their educational material in the newsletter. Frank said he thought that was a good idea. Asked James to check with the vendors to see if they have something coming out. Said it would be nice to put this all together to address specific areas of interest. Agilent and CEM have already expressed an interest in this. If we have a specific instrument issue, then ask them to share how they might overcome that problem. Bill asked James if there is anything regarding IAs that he has noticed. James said 12-16% for higher guarantees. Magruder program doesn't get a lot of concentrates; there are significant gaps once you get over 10%. Need to discuss how to address. Bill said higher iron and that there are a lot of higher % materials we could look at (a couple a year; unless we look at a mini-study or something). Data needed to change IA. Flat lining it is totally off; should at least go with Horowitz. We haven't been questioned on this but we need to look at this scientifically.*

*Upcoming meetings, methods forum and AAPFCO; any others? Nothing at this time.*

*Bill asked for Matt to give us a financial picture at the end of the year when the books are closed. James said also who has signing authority/access to the checkbooks (info); and how that plays out in the Magruder realm. Need to have those discussions. Matt said he would like some policy and guidance on this (Magruder or AAPFCO). Financial assessment at Feb meeting.*

*Committee to meet in January 2022 – update committee on labs paid, etc.*

*Bill said he doesn't know what our distribution is for the newsletter; may be able to get broader list.*

*Frank said we could also send it out in aglabs. Bill said international? IFA? Discussed Job helping with international audience. Should distribute as widely as possible electronically.*