

# Join Us At Instrumental Agricultural Analysis Seminar

*A free three-day seminar sponsored by LECO Corporation*

**September 18-20, 2019**

**LECO Corporation – Customer Experience Center  
Saint Joseph, Michigan**



## **Cost**

There is no cost to attend this seminar, which includes all course notes, refreshments, lunches, and dinners on Wednesday and Thursday evenings. Ground transportation during the duration of the seminar will also be provided. Attendees will be responsible for any travel and lodging costs.

## **Who Will Benefit**

Supervisors, managers, and chemists working and conducting research in laboratories testing soils, plants, fertilizers and animal feed materials.

## **How You Will Benefit**

This three-day seminar will focus on proceedings in instrumental agricultural methods of analysis including matrices such as soils, plants, fertilizers, and animal feeds. Lectures will focus on specific applications of instrumental techniques in the field of agriculture. Hands-on laboratory practical sessions will focus on the instrument and method configuration as well as the operational procedure of the applications featured in the presentations. The seminar will begin at 11:30 am on Wednesday, September 18 and conclude at approximately 1:00 pm on Friday, September 20. Presentation topics and corresponding instrument practical sessions featured include:

- Nitrogen Determination in Fertilizers by Combustion (FP828)
- Carbon and Nitrogen Analysis in Soils by Combustion as a Gauge of Soil Health (CN828)
- Carbon, Nitrogen and Sulfur Determination in Soils and Plant Materials by Combustion (CNS928)
- Nitrogen Determination in Feed, Starch, and Maltodextrin by Combustion (FP928)
- Sulfur Determination in Fertilizers by Combustion (S832DR)
- Comparison of Methods to Remove Soil Inorganic Carbon for Soil Organic Carbon Analysis (C832)
- Temperature Dependent Differentiation of Total Carbon (RC612)
- Thermogravimetric Determination of Moisture or Moisture and Ash in Soils and Plant Tissue Materials (TGA801 and TGM800)

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## Featured Speakers Include

- Paul Voroney, Professor, University of Guelph
- Ametra Berry, Feed and Fertilizer Program Lab Manager, Georgia Department of Agriculture
- Jonathan Cox, Owner and Lab Director, Kuo Testing Labs
- Mike Skelley, Analytical Services Chemist, Grain Processing Corporation
- Jenny Chauvin and Andres Jimeno, Chemists, Mosaic



## Seminar Outline

### Wednesday, September 18

11:30 am	Arrival, Introductions, Networking, Lunch
12:30 pm	Customer Experience Center Tour
1:00 pm	Opening Seminar Presentation; Dave Valensi
1:10 pm	Nitrogen Determination in Fertilizers by Combustion; Ametra Berry
1:50 pm	C/N Analysis in Soils by Combustion as a Gauge of Soil Health; Jonathan Cox
2:30 pm	Introduction to the FP/CN828; Mason Marsh
2:50 pm	Break
3:00 pm	C/N/S Determination in Soils and Plant Materials by Combustion; Mason Marsh

### Thursday, September 19

8:00 am	Nitrogen Determination in Feed, Starch, and Maltodextrin by Combustion; Mike Skelley
	<i>Hands-On Break Out Session</i> (Attendees will be split into two groups and spend ~1 hr at each station)
8:40 am	<ul style="list-style-type: none"><li>• Station 1 – FP/CN828</li><li>• Station 2 – FP/CNS928</li></ul>
10:50 am	Break
11:00 am	Sulfur Determination in Fertilizers by Combustion; Jenny Chauvin
11:40 am	Introduction to the SC832; Mason Marsh
12 noon	Lunch, Networking
1:00 pm	Comparison of Method to Remove Soil Inorganic Carbon for Soil Organic Carbon Analysis; Paul Voroney
1:40 pm	Temperature Dependent Differentiation of Total Carbon; Lloyd Allen
2:20 pm	Break
	<i>Hands-On Break Out Session</i> (Attendees will be split into two groups and spend ~1 hr at each station)
2:30 pm	<ul style="list-style-type: none"><li>• Station 1 – SC832DR</li><li>• Station 2 – RC612</li></ul>

### Friday, September 20

8:00 am	LECO Campus Tour
9:20 am	Thermogravimetric Determination of Moisture or Moisture and Ash in Soils and Plant Tissue Materials; Jeff Gast
	<i>Hands-On Break Out Session</i> (Attendees will be split into two groups and spend ~40 min at each station)
10:00 am	<ul style="list-style-type: none"><li>• Station 1 – TGA801</li><li>• Station 2 – TGM800</li></ul>
11:20 am	Seminar Wrap Up Session; Dave Valensi
11:40 am	Lunch
12:30 pm	Open Q&A time with instructors, TSL Chemists and instruments for interested parties

**Registration is limited; to register or for more information, contact Melissa Newman at 269-985-5762 or [melissa\\_newman@leco.com](mailto:melissa_newman@leco.com)**

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