

President's Message

Snow blankets the vineyard. 26 degrees outside. Good time to work on the monthly newsletter.

RVWA is very excited about our **Third Annual Southern Oregon Grape Symposium** on Tuesday, March 14. The new SOREC Viticulture Specialist Alex Levin has brought great ideas and energy to the project and we have a wonderful line-up of speakers and seminars. We will focus on Red Blotch virus in the morning, with speakers ranging from Marc Fuchs of Cornell University to Vaughan Walton of Oregon State. See below for details and RSVP by replying to this newsletter or sending a note to kjohnpratt@gmail.com.

In addition to the SOGS, we will have our **RVWA Annual Meeting/Dinner** on February 4 this year at the U S Hotel in Jacksonville, 5-9pm. Greg Jones will deliver his annual vintage report and give us a forecast of what to expect of the climate in 2017. Alex Levin will also have a few minutes to introduce himself and talk about his vision for SOREC viticulture research and extension. Cost remains the same, \$37.50 per person, and Jacksonville Inn will do the catering. Please RSVP as soon as possible by replying to this newsletter or sending a note to kjohnpratt@gmail.com.

I am also very excited about the **Oregon Wine Symposium** in Portland on February 21 and 22. They have asked me to moderate one of the viticulture sessions, "Dealing with a Changing Climate: Irrigation and Canopy Management." We have two renowned speakers, Mike Trought from New Zealand and Larry Williams from U C Davis. This is just one of many valuable learning opportunities at the OWS, as there are separate tracks on viticulture, enology, and business operations. Of course, it's always a great opportunity to see all the latest equipment and learn about all the trends in the wine business and catch up with friends from all over the state. Hope to see you there.

I am going to send out invoices for 2017 membership starting today. As I pointed out in the December Newsletter, the RVWA Board has voted to increase dues this year. We feel like we have made great strides making this organization important and relevant to your winegrape growing business, and we will continue to offer great educational opportunities and support research at SOREC. Thanks to generous donations from Asante Foundation and Phil Van Buskirk, along with matching funds from RVWA, we managed to raise \$10,000 help Alex get his research program up and running. Thank you for your support in renewing your membership.

Well, as soon as the snow melts and it warms up enough to not freeze my hands (I know, I'm a wuss!), I'll be out there like the rest of you pruning vines in preparation for another growing

year. We can only hope it will be as easy and productive as the last few years have been. Paz--
John

Upcoming Events

Rogue Valley Winegrowers Association Annual Meeting/Dinner

When: February 4, 2017, 5-9pm

Where: U S Hotel Ballroom, Jacksonville, OR

Cost: \$37.50 per person. Pay at the door with check or with credit card at rvwinegrowers.org

RSVP to kjohnpratt@gmail.com Deadline January 31

Oregon Wine Symposium

When: February 21, 22

Where: Portland Oregon Convention Center

Cost: Get early bird discount till January 15

Register Now for the 2017 Oregon Wine Symposium

Register now for the [2017 Oregon Wine Symposium](#), Feb. 21-22 at the Oregon Convention Center in Portland. The Symposium comprises two full days of industry thought leaders and experts covering the most relevant topics in viticulture, enology, and wine business plus the Northwest's largest wine industry trade show, with more than 170 exhibitors.

The Symposium is a must-attend event for wine industry professionals, delivering cutting-edge technical and business intelligence trends across all aspects of the wine business. All winery and vineyard owners, vineyard managers, winemakers, marketing and sales managers, and winery staff should [register today](#) to take advantage of the lowest Symposium ticket rates!

Southern Oregon Grape Symposium

When: March 14, 8am – 3 pm

Where: SOREC Auditorium, Central Point

Who: Morning (Red Blotch) session (English):

Dr. Kaan Kurtural - Cooperative Extension Specialist, Department of Viticulture and Enology, UC Davis

Dr. Vaughn Walton - Associate Professor, Department of Horticulture, Oregon State University

Dr. Marc Fuchs - Associate Professor, Department of Plant Pathology and Plant-Microbe Biology, Cornell University

Dr. Deborah Golino - Director, Foundation Plant Services, UC Davis

Morning session (Spanish):

Italo Cuneo - PhD Candidate, McElrone Lab, Department of Viticulture and Enology, UC Davis
Francisco Araujo - Director of Quality Control and Technical Winegrowing Operations, Atlas Vineyard Management, Napa, CA

Afternoon session:

Dr. Chris Parry - Postdoctoral Scholar, McElrone Lab, Department of Viticulture and Enology, UC Davis

Dr. Mark Matthews - Professor Emeritus, Department of Viticulture and Enology, UC Davis

Session schedule is not final and is subject to change

Cost: \$25 (RVWA members) and \$50 (non RVWA Members) Pay by check at door or by CC at rvwinegrowers.org

RSVP by sending a note to kjohnpratt@gmail.com Deadline March 10. Last year's event sold out, so don't wait to RSVP.

Greg Jones Climate Update

For a complete climate update, please go to our website rvwinegrowers.org and click on the link under "New and Noteworthy"

Custom Crush Opportunity

Are you in need of custom crush winemaking, cold storage for your winegrapes or wine lab services?? Naumes Crush is here for you!

Naumes Crush is Southern Oregon's newest, state-of-the-art custom crush winemaking facility. Naumes Crush has plenty of capacity this coming season to vinify quality wines that your customers will love. **Your grapes deserve the best- bring them to Naumes Crush and we'll do the rest.** Be sure to visit www.naumescf.com for more details, including testimonials from happy customers.

Naumes Crush has **extensive cold storage available for your grapes** this coming harvest. If you need to pick but the winery isn't ready, due to resources/labor, weather conditions, or any other reasons, cold storage can be an invaluable solution. Process the fruit cold, at your

convenience. Consolidate multiple days of picking for a shipment. Get it off the vines whether the winery is ready or not! Reasonable rates.

Naumes Crush also offers comprehensive **laboratory services for analyzing your vineyard, juice, must and wine samples**. Receive accurate results without the delay of shipping, at much lower costs than leading wine labs.

Visit www.naumescf.com, email info@naumescf.com or call [541.608.1721](tel:541.608.1721) for more info and to begin your valuable relationship with Naumes Crush!

Nitrogen Fertilizer Forms

by Stan Grant

It is a fact: chemistry is fundamental to life. It is also a primary means to directly influence grapevines, especially their mineral nutrition. Thankfully, our modern mineral nutrient toolbox includes a wide array of chemical tools for this purpose. To use them appropriately and effectively, we need to know about their characteristics and their behaviors in vineyards. In this article, we will focus on attributes and functions of common forms of applied nitrogen (N).

Before beginning, we need a bit of background information about the nature of N in vineyards. Vines acquire almost all N from soils in one of two mineral forms. They are the ions nitrate (NO_3^-) and ammonium (NH_4^+). There are no native sources of mineral-N in soils. Rather, all residual soil N occurs in organic forms contained in organic matter (OM). Mineral-N availability in soils depends on microbes to first decompose OM and release the organic-N it contains and afterwards to transform organic-N into mineral-N (fig. 1). The supply of mineral-N in soils is transient and normally low because most California vineyards soils are low in organic matter and because vines, cover crops, and soil microorganisms rapidly consume available mineral-N.

We will now consider nitrate. To maintain charge neutrality, negatively charged nitrate ions in fertilizers are bound to positively charged ions (cations). Nitrate fertilizers include calcium nitrate, mined sodium nitrate, and potassium nitrate. Of these, calcium nitrate is the most commonly used, with sodium nitrate limited to organically managed vineyards and potassium nitrate mostly used for foliar applications (table 1, *click on table to enlarge*).

All nitrate fertilizers are highly soluble and quickly become available for uptake in soil solutions. Soil nitrate is highly mobile and readily flows towards roots as they take up water. Nitrate moves into roots both passively with soil water and actively across cell membranes. After it is inside roots, nitrate easily moves upwards to shoots where it acts fast, darkening foliage, stimulating photosynthesis, and prior to ripening, promoting growth.

For charge balance, positively charged ammonium ions in fertilizers are bound to negatively charged ions (anions), such as sulfate, thiosulfate, phosphate, or polyphosphate. Ammonium polyphosphate (10-34-0) is the base for most liquid N-P-K fertilizer blends, such as 3-12-14.

Ammonium fertilizers readily dissolve in water like nitrate fertilizers, but the N they contain is more slowly available for the following reasons. While vine roots directly take up some ammonium, certain bacteria convert most to nitrate before roots absorb it. The ammonium to nitrate conversion usually takes 1 to 2 weeks. Ammonium may also interact with the soil matrix, either being adsorbed onto particle surfaces or fixed between layers of certain clay minerals (table 2, *click on table to enlarge*).

Actually, ammonium is potentially toxic to grapevine tissues. To protect them, ammonium taken into roots is immediately incorporated into organic compounds (amino acids and amides). Unlike nitrate, after uptake most N from ammonium remains in the roots and benefits them.

Urea ($\text{CO}(\text{NH}_2)_2$) is a third common form of fertilizer N. It is a familiar dry N fertilizer (46-0-0) and part of some liquid fertilizers, including UAN-32. Roots can absorb urea, but most passes through microbe-mediated conversion processes to ammonium and nitrate before uptake. For this reason, urea is slower acting than both nitrate and ammonium, and correspondingly, it has a longer residence time in soils and elicits slower responses in grapevines.

Before the advent of manufactured fertilizers, organic amendments, such as manures and cover crop residues rich in legumes, were important sources of applied N for vineyards. Today, they remain viable options for substantially increasing soil N. However, their low and variable N content and their slow and variable rate of N release make their contributions to vineyard N difficult to predict (table 3). For this reason, they often work best when used in moderate amounts in combination with other N fertilizers. In this role, they supply modest amounts of soil nitrogen for sustaining normal early season vine growth while, at the same time, providing numerous other benefits to vineyards associated with organic matter additions.

Actually, a combination of applied N forms is better than continued use of a single form for several reasons. First, it facilitates balanced vine nutrition because nitrate enhances the uptake of nutrient cations, like potassium, magnesium, and calcium, while ammonium enhances the uptake of nutrient anions, including phosphorus and sulfur. Second, it provides the greatest growth and development benefits, with nitrate mainly benefiting shoots and ammonium mainly benefiting roots. Third, it promotes soil pH neutrality because the alkalizing effects of nitrate cancel the acidifying effects of ammonium and urea.

Like all farming inputs, N fertilizers have associated risks. Nitrate, being highly mobile, is easily leached below the root zone. It may also be lost to the atmosphere if soils remain saturated for prolonged periods. Ammonium may volatilize as ammonia from warm, wet soil surfaces, as will urea. Urea may also gas off decomposing organic amendments. All forms of N, including

organic-N, may be lost with surface runoff and soil erosion. **To avoid such losses, apply N at moderate rates timed to satisfy the needs of specific developmental stages, rapidly incorporate it, and avoid over irrigation. Also, slow surface flow and protect your vineyard topsoil from erosion with a cover crop.**

To summarize, nitrate, ammonium, and urea are the principal forms of N in fertilizers. They act differently in soils and vines. At the same time, they are complimentary, promoting balanced vine nutrition and soil pH neutrality.

Trump's deportation vow spurs California farmers into action

FRESNO, Calif.

Days after Donald Trump won the White House vowing to deport millions of people in the country illegally and fortify the Mexican border, California farmer Kevin Herman ordered nearly \$600,000 in new equipment, cutting the number of workers he'll need starting with the next harvest.

Herman, who grows figs, persimmons and almonds in the nation's most productive farming state, said Trump's comments pushed him to make the purchase, larger than he would have otherwise.

"No doubt about it," Herman said. "I probably wouldn't have spent as much or bought as much machinery as I did."

Others in California's farming industry say Trump's tough campaign talk targeting immigrants in the country illegally — including a vast number of farmworkers — spurred them into action, too.

They're calling on congressional representatives to educate the incoming president on the workforce it takes to feed the country, and they're assuring workers they'll protect them.

San Joaquin Valley farmer Joe Del Bosque recently gathered about 20 year-round employees at a Los Banos steakhouse for their annual holiday lunch.

The festivities began in a serious tone. The topic of immigration took a bigger part of the conversation this year because of Trump, he said.

Del Bosque told his crew he'll make sure the new administration knows their vital role in the farming industry. It's a message Del Bosque wants his managers to spread to another 300 seasonal workers needed at the harvest's peak.

Leticia Alfaro, a food-safety supervisor at the farm, said in an interview that many of her friends who work in the fields don't have proper documentation like her, and they take Trump's threats seriously.

"They're terrified by his comments," Alfaro, 53, said in Spanish.

They fear being deported and torn from their children who were born here, she said. After Trump takes office, they wonder if it will be safe to make a simple trip to the grocery store, fearing checkpoints where they'll be pulled over and have to show their documentation.

Trump's remarks were felt sharply in California, which produces nearly half the country's fruits, vegetables and nuts valued at \$47 billion annually. Experts say his words resonate nationwide.

Texas, Florida and Georgia are examples of states with large migrant communities dominating home construction, health care, food service industries, said David Zonderman, a labor historian at North Carolina State University.

"California might be ground zero," he said of immigrant families living in the shadows. "But it's not a unique California issue."

The fear stems from Trump's campaign rallies, where he received a rousing response each time he vowed to deport people who are in the country illegally — up to 11 million. That position softened after Trump won the election, when he said he'd start with 3 million with criminal records.

Some farmers point to Trump's postelection shift as a sign his campaign bluster won't become reality. He is, after all, a businessman like them, they say. But others believe this shift underscores the president-elect's unpredictable nature.

"Our workers are scared," said Joe Garcia, a farm labor contractor who hires up to 4,000 people each year to pick grapes from Napa to Bakersfield and along the Central Coast. "If they're concerned, we're concerned."

Since Election Day, Garcia's crews throughout the state have been asking what will happen to them when Trump takes office. Farmers also are calling to see if they'll need to pay more to attract people to prune the vines, he said.

Garcia tells farmers not to panic. They'll learn how many return from Mexico after the holidays. "We'll plan around what we have," he tells them. "That's all we can do."

Roughly 325,000 workers in California do the back-breaking jobs that farmers say nobody else will do, according to the U.S. Bureau of Labor Statistics. Manuel Cunha Jr., president of the

Nisei Farmers League farming association, estimates 85 percent of California farmworkers live in the United States illegally.

Farmers for years have scrambled under a shrinking labor pool.

Mexico's improving economy has slowed the flow of migrant workers. The dangerous border, controlled by drug cartels and human traffickers, keeps away others.

Herman, the farmer who bought three new almond sweepers, said Trump influenced him on top of California's rising minimum wage and a new law giving farm laborers overtime rights that are equal to workers in other industries.

Plus, Herman said, he's heard too many workers question whether they'll return from their holiday trips to Mexico. "It's stories like that that have motivated me to become efficient and upgrade my equipment," Herman said.

Tom Nassif, a Trump adviser and president of the powerful trade association Western Growers, said farmers shouldn't fear the president-elect. Trump isn't interested in deporting their workers, he said.

Nassif said he isn't privy to the details of Trump's immigration policy. He's recommended that Trump allow farmworkers to stay by putting immigrants in the country illegally who are otherwise law-abiding residents on a period of probation under conditions that they pay taxes, learn English and obey all laws.

Read more here: <http://www.sacbee.com/latest-news/article124658669.html#storylink=cpy>