

# Get the Jump on Fungal Disease Threats

## Prevention and awareness can help protect winter produce

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It's challenging enough to be a successful grower when you know what you're up against — like weeds, insects, or nutrient deficiencies — but things get even trickier when you have to rely on hunches and best-guess scenarios. One example is fungal disease in winter vegetables and produce, especially lettuce. A potentially harmful fungus strain such as downy mildew can sneak up on a crop, and if you haven't taken preventive measures, the disease could be economically devastating.

"Most growers tend to have a wait-and-see approach before they use a fungicide, but

sometimes that's not good enough," explained Dr. Mike Matheron, a plant pathologist with the University of Arizona Extension Service. "At this time of the year, as soon as conditions are favorable for downy mildew, it's important to have a preventive treatment before you see any disease damage."

Specifically, Dr. Matheron warned about higher humidity that causes dew to form on a lettuce crop for several mornings in a row, which can be conducive to a downy mildew infection. Untreated downy mildew spreads rapidly through the air and may even become systemic in a crop. Serious fungal disease can cause significant economic damage to a crop. Although it's unusual for the downy mildew

pathogen to kill lettuce, it causes spots on the leaves and affects the crop's quality and value.

NEWS & INFORMATION TO HELP YOU GROW

"When you get a bad infestation, the affected portion of the crop is unharvestable," said PCA Gordon Goodwin (Fertizona – Yuma). "It's a problem, but there's no silver bullet for it."

Downy mildew in lettuce often first appears as spotted yellowish areas on the upper surfaces of lower leaves. Eventually the disease can spread, turning leaves brown and necrotic. On the under sides of leaves, patches of white, fluffy, fungal growth may develop, explaining the "downy" name.

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New Product Spotlight Corn Silage Hybrids

### **Positive Tax News for Agribusiness**

There's an old joke about how you should always be careful if someone says, "I'm from the government, and I'm here to help you." But recently, our local politicians really did something beneficial for us. On December 1, the Arizona legislature passed House Bill 2275 to eliminate requirements of sales tax for many essential agricultural inputs. That's good news for all of us.

The new law actually stems from an earlier effort to promote "consistency and fairness" in the agricultural tax structure. Under our previous laws, "propagative materials" were already exempt from being taxed. However, the

legal interpretation of the term "propagative" was limited to cover only certain agricultural and horticultural products (such as seeds and seedlings), but not nutrients or chemicals. The new law expands the product list so that many more inputs — including fertilizer, soil amendments, pesticides, growth regulators, and others — can now avoid the tax.

Before this change, Arizona was one of only two states with such a tax on fertilizer. That led many Arizona growers to cross state lines to buy their fertility products elsewhere, which naturally hurt our economy. This new law removes a big disadvantage that Arizona agribusinesses had faced, and it will put us on the same footing as other states that don't tax those key inputs.

As we head into 2020 looking for positive signs and encouraging news

for agriculture, this is a step in the right direction.

Best of luck to you in the new year!

**Jim Compton** 

President, Fertizona & Compton Ag Services

**FERTI-PHITE** 





Photo credit: Professor Margaret McGrath, Cornell University.

## Proven fungicides enhance crop success

There are many good fungicide products available through your Fertizona dealer, such as Curzate®, Presidio®, and others, but consult with your PCA before choosing one.

"Some varieties of lettuce are more susceptible, and every situation is different," said Goodwin.

"This is not a perfect science, but the best approach is to make sure you have the right fungicide at the right rate at the right time."

When continued wet environmental conditions or previous infections encourage the establishment of downy mildew, applying a fungicide before the appearance of disease symptoms might not even be enough; continued applications may also be needed as long as the fungal threat exists.

To optimize fungicide performance, rotate products with different modes of action. That enables you to minimize the chance that fungal pathogens will develop a resistance to the active ingredients in the fungicide. Also, be sure the fungicides are applied with sufficient water volume to thoroughly cover lettuce foliage.

### Apply Fertizona's Ferti-pHite for more crop protection success

Some growers who have dealt with downy mildew and its damage have found products and strategies that help. For example,

lettuce fortified with Fertizona's soluble nutritional spray Ferti-pHite Plus 0-28\*-26 has often shown to be less susceptible to downy mildew infestations. Designed to be used as a supplemental treatment for a regular fertilizer program, Ferti-pHite delivers phosphate ions to help promote a crop's health and its natural ability to resist disease.

"It really seems to help control the downy mildew," added Goodwin. "I've seen it work."

For more information about fungicides or any other products, contact your local Fertizona or Compton Ag office, or visit www.fertizona.com.

### "It's important to have a preventive treatment before you see any disease damage."

- Dr. Mike Matheron, University of Arizona Extension Service



### Unique turf colorant keeps golf courses green all winter

It's a well-known fact of life in Arizona that visitors don't come here in the winter to play golf on brown grass. Consequently, regional golf course superintendents are always looking for smart, effective ways to keep their turf green and healthy all year round. One excellent option is Endurant® turf colorant.

Not to be confused with old-fashioned turf "paint," Endurant is an organic pigment that gives dormant grass a natural, consistent green color all winter. In some cases, that means a course can reduce its costs by minimizing the need for overseeding.

# "The Endurant keeps everything green...and that keeps the golfers happy."

Mike Reinecke, Golf Course
 Superintendent, Eagle Mountain

At one local golf course — Eagle Mountain in Fountain Hills, Arizona — the Endurant is used in conjunction with overseeded ryegrass, and the results have been outstanding.

"The bermudagrass is going to yellow up anyway, but then when it gets cold, the ryegrass shuts down, too," explained Golf Course Superintendent Mike Reinecke. "The Endurant keeps everything green, all the time, and that keeps the golfers happy."

Eagle Mountain is a gorgeous facility nestled among the McDowell Mountains northeast of Phoenix. Opened in 1996, the lush, immaculately maintained 6,800-yard course has earned a reputation for its dramatic features and top-quality conditions. A lot of the credit for

its exceptional appearance goes to Reinecke, who came to Eagle Mountain in 2016 following years of success at other local courses.

"Mike was one of our first customers to try Endurant five or six years ago," recalled Nick Lubich, the Turf Management Specialist (Fertizona – Fennemore) who serves Eagle Mountain. "He was like a pioneer for the colorant, and he's always had good success with it."

"I've been very happy with Endurant," said Reinecke. "And the company has mastered the product. Its color looks better than ever now."

Reinecke pointed out another benefit he likes about the colorant. In cold weather, spraying Endurant also acts as a heat layer on top of the turf and pushes growth on the new ryegrass.

Although Eagle Mountain uses Endurant on top of its ryegrass, other courses have discovered that the colorant can allow them to eliminate overseeding. That's appealing for a superintendent who wants to reduce costs of rye seed, fertilizer, and water.

In addition to being the exclusive Arizona distributor for Endurant, Fertizona offers a wide range of other excellent turf products such as seed, fertilizer, chemicals, and more.

"We get a lot of things from Fertizona," Reinecke said. "They're a great partner, and they're always there for us when we need them."

For more information about Endurant turf colorant or other golf course products, contact the turfgrass specialists at Fertizona – Fennemore at 623-935-4252, or visit www.fertizona.com.



# Congratulations to Cory Scherting

## More management responsibilities for veteran sales pro

Well-deserved kudos are in order for Cory Scherting at Fertizona's Fennemore location, as he was promoted last year to be the company's Turf and Landscape Sales Manager. Since joining Fertizona in 2004, Cory has consistently demonstrated impressive skills and valuable knowledge, and this latest achievement is further proof of his abilities.

"In many ways, I'm still doing the same things I did before," said Cory. "But in this new position, I'm also overseeing the work of our other salespeople. It's a nice mix of responsibilities."

For example, Cory still gets to call on turf and landscape customers, but admits he likes spending more time at his desk instead of behind the wheel. Cory and his sales team focus their efforts on golf courses, landscape professionals, and nurseries, with a range of products such as fertilizer, seed, and weed and pest control.

"We do it all," Cory added. "We might sell a walk-in customer one bag of fertilizer, and then turn around and complete a 100-ton order."

So, congratulations, Cory, and thanks for everything you and your staff provide!

If you have questions about turf, ornamental, or landscape products, please call Cory at 602-568-7237, or visit <a href="https://www.fertizona.com">www.fertizona.com</a> for more information.



### New company leads the way in hemp production

Throughout civilization, ambitious growers and botanists have developed new types of crops and cultural practices, often changing a region's agricultural landscape along the way.

In that same vein, it's safe to say there's a whole new realm of farming in southwestern Arizona: the production of industrial hemp (part of the *Cannabis sativa* plant species). Integrated CBD™ LLC is a Scottsdale-based business that began growing hemp near Hyder last summer, with the goal of becoming the leading supplier of CBD oil.

CBD, or cannabidiol, is a chemical compound derived from hemp plants. In recent years, millions of people have discovered a wide range of therapeutic benefits from all-natural CBD products, including relief from pain, anxiety, sleep disorders, inflammation, and many other conditions. As a result of its booming popularity, the market for industrial hemp and CBD is projected to reach \$22 billion by 2022.

However, it wasn't even legal to grow hemp in Arizona until June of 2019. But as soon as the new laws were passed, Integrated CBD went right to work.

"The middle of summer isn't an ideal time to be planting in the desert, but we were determined to be the first in the market," explained Richard Phelps, Director of Farming Operations for Integrated CBD. "We installed a state-of-the-art drip irrigation system and transplanted hemp seedlings on 1,200 acres."

There's not a big knowledge base about largescale hemp production, so Phelps and his team had to get up to speed quickly.

"We needed to learn a lot," he admitted. "I think I crammed a whole year of education into a few months, doing research and talking to people in the industry around the country."

He added that Fertizona and PCA Ken Narramore provided a great deal of help as well.

"Ken is phenomenal, and we really trust him," Phelps said. "He's out here twice a week to advise us, and Fertizona has been great to work with."

"It's a good partnership," agreed John Haggard (Branch Manager, Fertizona – Buckeye and Compton Ag Services). "Integrated uses our PBO 2-2-1, Nitro-Jen 6.25-0-0, and Jenner 8 humic acid as liquid fertilizers because their entire operation is organic."

All three products are approved by the Organic Materials Review Institute (OMRI) for crops grown organically. PBO 2-2-1 — which stands for Plant-Based Organic — is an excellent source of macronutrients (N, P, K) made from only natural ingredients such as fermented

## "Fertizona has been great to work with."

 Richard Phelps, Director of Farming Operations, Integrated CBD corn extractives and condensed distillers solubles. Integrated CBD's hemp products are all certified USDA organic.

"Our mission is to be the preeminent supplier of sustainable, organically grown hemp," Phelps said. "We're able to assure our customers — S&P 500 companies — of consistent quality and a steady, reliable source. That's critical."

To support its objective and maintain quality control, the company also operates its own huge new processing facility where the hemp is dried (with proprietary low-heat drying technology) and CBD oil is extracted.

The first plants were harvested last fall, and a new crop is now in the ground. It's been a busy and exciting time for Integrated CBD, as it is making agricultural history. Fertizona is honored to be part of it.

To learn more, visit <u>www.integrated-cbd.com</u>.





### Launching the Next Generation

"I was exposed to a lot of agricultural business while I was growing up," he said. "And then I had summer internships at Fertizona after my sophomore and junior years in college. I was able to ride with other PCAs and get a true feel for what the job involved."

Logan graduated from the University of Arizona last May, having earned a degree in Agricultural Technology Management with an emphasis on crop production. Only a week later, he accepted his new position at Fertizona and went right to work.

"I really like it that the company has such a family atmosphere."

Logan Osborn,
 Fertizona - Buckeye

"In school, we learned about the science of ag and generalized crop knowledge, but not much about the practical side," he said. "In my job now, I get to combine those things and apply them to real-world situations."

Currently, Logan still spends time working alongside other PCAs and learning from them, but he's also gaining more opportunities to consult with growers on his own and make personal recommendations. Alfalfa and cotton are the crops he deals with most often, but Logan also calls on operations growing melons

and produce. He's scheduled to get his own PCA license this January.

Outside of work, Logan doesn't have much free time. For one thing, he's just finishing up construction on his first home and everything involved with moving in, so that has naturally kept him very busy. However, he does manage to get away for weekend hunting trips on occasion.

For the moment, though, his new home and new job are demanding most of Logan's attention, but he obviously enjoys the direction his life is taking.

"I love working for Fertizona, because the environment isn't like a big corporation. If I have a question, I can call Jimmy or Casey Compton and get an answer," he said. "I'm grateful for the opportunity to be here, and I want to fulfill my obligations to the company."

In closing, Logan made one more comment about Fertizona that seems especially appropriate.

"I really like it that the company has such a family atmosphere," he added.

As an Osborn, he may have also meant that literally.

## Logan Osborn has deep family connections in Arizona agriculture

If you've done business with Fertizona for any length of time, there's a good chance you've interacted with somebody named "Osborn" — and now there's another one to add to our ranks: Logan Osborn, a sales representative at the Fertizona location in Buckeye.

"Yes, I definitely have a lot of family roots in this business," Logan said, with a bit of a chuckle. "Dennis Osborn (Crop Protection Sales Manager, Fertizona) is my great-uncle, and my father's cousin, Jared Osborn, is the manager of the Fertizona location in Roll. My father is a PCA, too."

Some young people come out of college without a clear direction for their future, but Logan acknowledged that his career path was pretty firmly in place years ago.

New Hires

OMAR MOLINA Yuma

ESTEBAN SILVA Compton Ag Services GERARDO CORRAL FELIX
Casa Grande

TIM GAVELEK Fennemore



### New silage hybrid shows excellent potential

As part of our commitment to help our customers "grow smarter" and be successful, Fertizona is always looking for new products and ideas to improve your crops — along with your profit potential. A great example is our ongoing effort to provide better seed choices, and this year we have an exceptional product for dairy operations.

"We're excited about a new silage hybrid launched in the DEKALB® corn seed lineup," said Tyke Bennett, Seed Products Sales Manager at Fertizona. "It's known as DKC70-64. It should be a good fit for growers in our area."

"The new DKC70-64 is a 120-day relative maturity hybrid with great potential for topend tonnage and more milk yield per acre," added Paul Sawyer, Territory Sales Manager for Bayer. "This hybrid would be an excellent companion to other popular Dekalb hybrids, like our best-selling DKC67-44 and DKC68-26."

DKC70-64 features SmartStax® technology to provide both above-ground and belowground protection from insect damage. It's

also shown to have outstanding stay-green and stalk strength. To achieve top yields, it's recommended that DKC70-64 should be planted at medium populations, although its Flex-style ear can help to maximize yield across populations.

By offering hybrids with unique genetics and traits, Fertizona gives corn growers and dairy producers more flexibility in their silage programs. However, it can be tricky to know which hybrids are best for a specific area or agronomic situation.

"There's a lot to know about these silage hybrids, especially with all the latest technology and changes," said Bennett. "But we want corn growers to know that we're here to help them with any questions they have."

For more information, contact Tyke Bennett at 520.836.7477, talk to your Fertizona or Compton Ag Services representative, or visit <u>www.fertizona.com</u>.



### Make Your Spray Products Work Harder

### Top-quality adjuvants improve penetration and absorption

Working with poor-quality water is a real problem for many Arizona growers, which is why it's so important to add surfactants or other treatments to your spray products. By improving the way water reacts with plant surfaces, adjuvants naturally increase the effectiveness of whatever you spray — pesticides, foliar nutrients, PGRs, defoliants, etc. Surfactants and conditioners can also reduce the volume of water needed for top results.

Fertizona offers many highly effective water treatments and other adjuvants. For example, Ful-Proof uses natural fulvic acid (a compound derived from decomposed organic matter) to make crop spray products more absorbable through plant cells.

WETCIT® is a patented, orange-oil-based surfactant that overcomes water-repellent properties of insects and plant leaves, enabling pesticide sprays to penetrate surfaces faster

and increase coverage. WETCIT is especially effective with defoliants and systemic products because it moves down to the roots faster.

FERTI-BUFF 0-8-0 is an acidifier that's especially useful for reducing hydrolytic breakdown of various pesticides, such as organophosphate insecticides, in alkaline solutions.

Poor water can seriously impact certain salt-formulated herbicides like Roundup\* (glyphosate). Various water conditioners enhance glyphosate performance, but none are as cost-effective as ammonium sulfate (AMS).

"Hard water ties up herbicides like Roundup and decreases their effectiveness," said Dennis Osborn, Crop Protection Sales Manager, Fertizona. "Adding AMS to the tank mix adjusts the pH and prevents the cations found in the water from binding to glyphosate thus increasing efficacy."

However, rather than pay for a surfactant to improve herbicide absorption, some growers

simply increase the amount of glyphosate they apply, hoping to get better weed control that way.

"But then you're just wasting more chemicals," Osborn added. "Without the AMS, you're already losing one-quarter to one-third of the glyphosate's efficiency to begin with. You might as well include the adjuvant and just do the best job you can."

In addition to the waste, unnecessarily applying more glyphosate worsens the risk of weed resistance. AMS is critical for proper, efficient coverage of glyphosate sprays.

Fertizona offers different grades of ammonium sulfate in both liquid and dry formulations, as well as several other top brands, as the chart below shows.

To learn more, contact your local Fertizona or Compton Ag office, or visit <u>www.fertizona.com</u>.



	· Const				PROL	DUCTS		A STATE OF THE STA	
		Supr-Spred <sup>™</sup>	Rev-lt <sup>™</sup> *	Ferti-Bı	uff 0-8-0	Ferti-Oil	AMS Premium Liquid	AMS MAXX <sup>™</sup>	AMS Premium Blend <sup>™</sup>
	Active Ingredient	Alkyl phenol ethoxylate	Modified Seed Oil	Phosphoric Acid		Vegetable Seed Oil	Ammonium Sulfate	Ammonium Sulfate	Ammonium Sulfate + Surfactants
200	Description	90% non-ionic spreader, activator, and defoamer	Modified seed oil-based spreader, activator, and penetrator	Acidifier for use with agrichemicals		Cottonseed oil-based adjuvant and dilutent	Liquid AMS water conditioning agent	Concentrated multi-function spray adjuvant, water conditioner, defoamer, drift retardant	Dry, water soluble blend of AMS, nonionic surfactant, deposition aide & antifoaming agent
C Mark September	Usage	Use for general spreading of crop protection products. For use on all crops, turf and ornamentals. Use also to improve wetting of soil for increased water penetration and dust control.	Use to improve penetration of leaf cuticle and absorption of herbicides. Replaces crop oil concentrates. Use with sulfonyl ureas, glyphosate, clethodim, etc.	Compatible with organophosphate, carbamate and chlorinated hydrocarbon insecticides.		Use wherever an oil- based adjuvant is desired and with low- volume applications.	Use with herbicides, defoliants, and dessicants whose activity is enhanced by the addition of AMS.	Use with herbicides, defoliants, and dessicants whose activity is enhanced by the addition of AMS.	Use with herbicides, defoliants, and dessicants whose activity is enhanced by the addition of AMS.
	Rates per 100 Gallons¹								
	Acaracides & Fungicides	½ - 4 pints	½ - 1 pint	pH:	Concentration				
	Insecticides	½ - 4 pints	½ - 1 pint	6.3	1 pint	1 - 2 qt.²			
	Herbicides	½ - 4 pints	1½ - 2 pint²	6.7	1/3 pint	1 - 2 qt.²	2½ - 5 gals.	2 - 4 qts.	17 lbs.
	Defoliants & Desiccants	½ - 4 pints	1½ - 2 pint²	7	1/5 pint	1 - 2 qt.²	2½ - 5 gals.	2 - 4 qts.	17 lbs.
	Benefits	Better coverage and penetration of plant surfaces. Greater effectiveness of foliar & soil applied products.	Assists penetration of the spray mix through the plant cuticle.	of various pesticides, such as organophosphate insecticides, in alkaline solutions.		Improves spreading and reduces evaporation of crop protection products.	Improves effectiveness of herbicides sensitive to hard water.	Improves effectiveness of herbicides sensitive to hard water.	Improves effectiveness of herbicides sensitive to hard water.
	Package Sizes	1 gal., 1 qt., 1 pint	2.5 gals., 1 pint			260 gal. tote, 2.5 gals.	260 gal. tote, 2.5 gals., 1 pint	2.5 gals	51 lb. bag



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### LOCATIONS

### Contact Your Local Office For All Your Growing Needs

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Dennis Osborn Crop Protection

Tyke Bennett Seed Products & Fertilizer Bagging

Jimmy Compton Crop Nutrition

Shea Nieto Credit Manager

Jeffrey Benge Financial Controller

#### **BUCKEYE**

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John Haggard, Manager

### **FENNEMORE**

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John Haggard, Manager

### **ROLL**

4212 South Avenue 39E Roll, AZ 85347 (928) 785-9016

Jared Osborn, Manager

### **THATCHER**

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#### **WILLCOX**

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Mike Espil, Manager

### **COMPTON AG SERVICES**

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