



AG LINK



Trust

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Trust is an important part of any relationship; whether it is between friends, spouses, parents and children or coworkers. Trust is significant to the success of all of these relationships. It is also an important part of the relationship between a business and its customers. At AG RX, we strive daily to be your trusted partner in plant health and plant protection. We realize it is not a process of "just trust us". Trust is something we have to earn by listening to your needs and living up to our obligations. Once it is earned we are obligated to not only maintain it

but to make it stronger. Trust most likely starts with our PCA's but we know it does not end there. Everyone at AG RX plays a roll in this relationship. From Customer Service to our Application Crews to the Accounting Department to Purchasing to Delivery and so on, all contribute to a solid, trusting relationship. Trust that jobs are completed, material is delivered and orders are taken. We have developed some strong relationships over the last 20 years and look forward to growing new relationships over the next 20 years, relationships based on trust.

In this newsletter we have some interesting articles pertaining to effects caused by drought. We are also introducing a new product, MicroGain Soil, that we feel has the potential to be a part of your cultural practices. Finally, be sure to look for our redesigned booths at both the Santa Barbara County and Ventura County Fair.



Chris Oliva - Sales Manager

Calendar of Events

Santa Barbara County Fair - July 9-13

Ventura County Ag Association Produce Tournament - River Ridge Golf Course - July 25th

Ventura County Fair - July 30-August 10th

Resistant Weeds and How to Manage Them - Dave Holden

If you have not had an issue with glyphosate resistant Mares tail or Hairy fleabane in your orchards or farmsteads yet, you are in the minority. Due to our dependence on glyphosate, many weeds have developed resistance to this chemistry. Fear not! There are options.

1. Do not wait to spray these resistant weeds. The younger you hit them the easier they are to control. Once they are six inches tall and becoming hardened off, the best you can hope for with glyphosate is to slow them down a bit.

2. Citrus growers have several options. A new chemistry, sold as Treevix works very well in combination with glyphosate herbicides, ammonium sulfate, and Metholated Seed Oil (MSO). This program works better in cooler temperatures, but here along the coast it should work well year round. Another chemistry which is similar to glyphosate is glufosinate, sold as Reckon 280 SL and under other labels also. Neither of these two chemistries are registered for use in Avocados.

3. Avocado and citrus growers also have the option of trying an old "burn-down" chemistry, Gramoxone. This herbicide is still a

very good contact controller of all weeds. The issue that keeps most from using it is the Danger label that goes along with this product and makes it a restricted use material, thus requiring a closed system to handle the materials.

The longer we use glyphosate, the greater the development of resistant weeds is going to become. The use of some winter soil sterilents may help with this issue. It would be good to discuss the options before you with your consultant PCA.



AG RX is the exclusive distributor for MicroGain Soil ®, a novel OMRI listed for organic use biological fertilizer which contains beneficial microorganisms.

MicroGain Soil ® is sold worldwide and has just been introduced to the USA market. MicroGain Soil ® is an OMRI listed for organic use biological fertilizer which contains strains of *Bacillus*, *Pseudomonas* and *Trichoderma*. These strains work in concert with the potassium humate and amino acids in the formulation to provide unique advantages to growers.

David Holden of Holden Research and Consulting has confirmed on strawberry trials in Oxnard, California that MicroGain Soil ® has increased yields by as much as 40% compared to the grower standard. Another trial conducted by Holden Research and Consulting confirmed that MicroGain Soil ® has increased celery yields (weight) by 19% and at the same time allowed the grower to reduce the Nitrogen fertilizer rate by 23%.

Pacific Ag Research trials on tomato plants grown in Guadalupe, California observed a 16% increase in marketable fruit per acre compared to the grower standard when treated with MicroGain Soil ®

MicroGain Soil ® is a water soluble powder that is typically mixed with water and then injected into the grower's drip irrigation system. MicroGain Soil ® can also be mixed with liquid-based fertilizers as long as the pH of the solution is between 5.5 and 8.

MicroGain Soil ® is manufactured in the USA by Microlife Agro Sciences in Sarasota, Florida. The microorganisms in MicroGain Soil ® are produced to the highest food grade standards and then freeze dried to provide for a longer shelf life compared to competing products. MicroGain Soil ® contains microbes that have a history of benefits to plant health and are present in the product at much higher concentrations compared to competing products.

MicroGain Soil ® is typically applied upon transplant of such crops as tomatoes, peppers, strawberries, celery and other major vegetable crops. The microbes in MicroGain Soil ® colonize the rhizosphere of the plants which then assist in nutrient uptake to the plant. MicroGain Soil ® as used in Chile on Avocado trees produced an average 20% increase in tree size and vigor compared to the grower's standard protocol. MicroGain Soil ® is also used on Citrus trees in Spain with similar results as the Avocado fields in Chile.

Many growers worldwide use soil fumigants to sterilize the soil before transplant. These same growers are using MicroGain Soil ® to help repopulate the soil with beneficial microbes in addition to the biofertilizer benefits. MicroGain Soil ® is typically applied at a rate of 2.2 pounds per acre for strawberries and vegetable crops. In order to continue to provide beneficial microorganisms and biostimulation to the plant, the grower will typically apply MicroGain Soil ® every 30 days.

Soil Salinity



A helpful concept for understanding problems with salinity is that each location is unique. Unique salinity circumstances often require different inputs and practices. It is difficult to determine key opportunities without an accurate soil and water analysis.

Soils tend to take on the chemical characteristics of the irrigation water. The quantity and timing of precipitation also impacts soil chemistry. Water is by far the greatest input applied to crops. For a perspective on this, a typical crop in the South Central Coast of California might have about 5 million pounds of irrigation water applied per acre per year with an additional 3.5 million pounds from rain on a normal year. The absence of the pure, moderately acidic precipitation due to the drought is having a profound impact on soil chemistry.

While salts can cause plant damage and limit crop potential, salts also make plants grow. In fact, essential plant nutrients in various forms are all part of total soil salinity. So let's break down some of the key components of salinity and different some different types of salts.

An important measurement is Soluble Salts or Electro-Conductivity. Soluble salts is a measure of anything with an electrical charge (plant nutrients have a charge too). This figure, whether in a soil report or water report can be expressed in PPM (parts per million) as total soluble salts, or as Electro-Conductivity (EC) in mmhos/cm. A simple calculation to remember is that an EC of 1 equals 650 PPM soluble salts. In water samples, as EC approaches and passes 1, attention to the content and makeup of the total soluble salts is important. Keep in mind that a moderate EC level is not necessarily bad if the composition and ratio of the salts are good. EC levels in soil reports should be looked at in a similar manner as water.

Next look at sodium. Sodium is harmful in two ways. First it causes what is called soil de-flocculation. The soil particles have a net-negative electrical charge. Sodium has a mono-valent (one) positive charge. Simply stated, the unique atomic structure of sodium causes the soil particles to lose structure. This tends to cause reduced water penetration and moisture distribution problems. Second, sodium harms plants because it limits root growth and can inhibit uptake of key nutrients such as calcium, magnesium, and potassium. As sodium passes 4-5% base saturation on a soil report it is generally indicative of a need to reduce it.

pH is often the first figure looked at and is a measure of relative basicity or acidity. However, what chemistry is driving the relative pH is more important than the relative pH.

Bicarbonate is a salt with a negative charge that causes reactions in the soil with many elements that have a positive charge. It comes in the water, and when in excess causes a reaction or "tie-up" with positively charged elements as the water evaporates. These reacted forms are called carbonates and in many forms render the nutrients very insoluble and therefore unable to the plant. An example of this would be calcium carbonate (also known as free lime). This process also tends to drive soil pH up. Important nutrients that are often impacted detrimentally are calcium and magnesium. Micronutrients such as iron, zinc, and manganese are also impacted.

Chloride is an element with a negative electrical charge that should easily leach. If levels are accumulating the soil this is generally indicative of irrigation efficiency issues. Chloride in the plant can cause phytotoxicity.

Another element that is an important nutrient is sulfur. The plant available form, sulfate-sulfur, tends to leach readily in the soil. Moderate levels are very beneficial for plants, but in excess it causes nutrient uptake antagonism in the soil. Like chloride, sulfate-sulfur tends to leach readily so if accumulating is a cause for concern.

One last element to consider is nitrate-nitrogen. Be aware of how much nitrogen is coming in your irrigation water. Adequate levels are beneficial for plants. Excess levels are not beneficial and can of course lead to ground water contamination.

Last but not least, one of the key things to evaluate is the relative availability of beneficial nutrients for the plant. Soil, water and tissue analysis can be very beneficial for this. A plant with balanced plant nutrition is better able to offset the negative impact of salinity.

In summary, get objective information to help determine what practices and product inputs can be most beneficial for your specific operation. Seek consultation from your AgRx rep for additional perspective. They have access to a tremendous amount of experience.

Redox Product Option Summary: Consider Soilex where soil tests indicate excessive sodium. PeneCal can be used where EC values exceed 1.2. Talk to your AgRx rep about a limited time offer of free Redox soil analysis tests.

Citrus & Avocado

It goes without saying that every citrus and avocado grower would like to produce not just more, but also higher quality fruit. At the same time, budgets need to be maintained in order to assure an optimum return on investment. At times, growers and consultants alike are challenged as to

where to put focus their efforts. There is one effort that consistently provides crop benefits – a focus on your roots!

Consider breaking the life cycle of fruit into three distinct stages; bloom, cell division, and cell enlargement. Let's discuss the role of the root system in each these stages.

The energy required by the plant to support good bloom and crop set starts months ahead of this event. Plants store much of the carbohydrates required for this energy-intensive process in the root system. The quality and quantity of roots will determine the resources the tree has to support a potential quality crop.

After the fruit successfully makes it past bloom, the next stage of growth determines to a large extent the potential size and quality of the fruit. During cell division, the cells are formed. The root system is critical in order to assimilate key nutrients like calcium that determine the integrity of the individual cells. A stronger root system will more successfully take up these key nutrients.

Later in the crop cycle the fruit begins to size. This period of cell enlargement takes the potential fruit size and quality and produces the crop that will ultimately be harvested. During this period of growth, the roots determine the nutrients and water resources that can be allocated to the fruit. Good potassium nutrition during this stage is particularly important.

Given the importance of roots in these three stages, what are some of the key strategies that can be utilized to improve root quantity and quality?

- First, there is no substitute for digging and visually examining roots. This first-hand observation tells a lot about your trees and helps to identify just what types of opportunities exist. It is very helpful to get your AgRx consultant involved in this process. They have access to a tremendous amount of experience that can help you.
- Second, keep in mind that optimum irrigation management is extremely important. Water and air ratios in the soil determine just how efficient the root system can operate. There is no substitute for good irrigation practices.
- Third, a soil analysis is invaluable in order to determine what product input opportunities exist. Very effective product inputs are available to cost-effectively facilitate the growth of improved quality and quantity of roots.

In summary, the quantity and quality of your root system greatly influences your crop potential. With few exceptions, an effort to promote and stronger root systems will improve your bottom line.

Redox Product Option Summary: If an examination of root system indicates a need for quality and quantity of roots, consider applying Rootex Pro. If visual examination indicates excessive biotic and abiotic stress, Root Rx is an excellent option. Talk to your AG RX consultant about a limited time offer for free Redox soil analysis tests.



The Drought

The drought is on all of our minds. Also included in this edition of the AG RX Newsletter is an article by John Kelly regarding salts in our soils and the effects they have on crop production. John made a very astute statement, that bears repeating: "Soils tend to take on the chemical characteristics of the irrigation water. The quantity and timing of precipitation also impacts soil chemistry. Water is by far the greatest input applied to crops. For a perspective on this, a typical crop in the South Central Coast of California might have about 5 million pounds of irrigation water applied per acre per year with an additional 3.5 million pounds from rain on a normal year. The absence of the pure, moderately acidic precipitation due to the drought is having a profound impact on soil chemistry."

I would just like to emphasize what John said. "Water is by far the greatest input applied to crops" We know of 17 (possibly 18) essential elements for crop

production, but the most critical elements are hydrogen and oxygen, combined to make H₂O (water). The number one consult problem I deal with today is tied to water, not necessarily the lack of or excess of any of the other elements. And the number one solution most growers think they need to solve these water issues is more nitrogen and this is generally the last thing we need to do to solve water problems. My point here is that the outcome of too much, too little, or too salty water is that our crops look poorly and that poor look often times is seen as yellow plants.

Fresh rain water also contributes to sizing and finishing our local tree crops of avocados and citrus. Pure rain water reduces soil salts and allows for better water uptake by the trees. When we suffer through dry years, our fruit tends to not size and matures early. About January I start getting calls for a fertilizer to help size the fruit or slow down the ripening of the lemons. My simple answer is pray for rain because it is the

best chemical solution to early maturity and sizing that I know. It is just that simple. Be wary when someone has an alleged solution for fruit sizing at the end of the season that does not involve just plain old rain water.

My point here is not to say there are no chemical solutions to the lack of rainwater. There may be many, but they are not generally one time fixes. It is wise now to think about the issues you may be facing next spring as your crops mature if we do not have a good 15-25 inch rain year this fall, winter, and spring. Give your AG RX consultant or myself a call so we can look at options for the on going crop season this year.



Dave Holden



Ken's Corner

As business owners and employers, we face many regulatory challenges. I wanted to make you aware of a couple that we are facing soon. One is the minimum wage increase and the other is a compliance mandate by the California Department of Pesticide Regulation.

On July 1, 2014, California's minimum wage increases to \$9 per hour from the existing minimum wage of \$8 per hour. This is the first increase to the state minimum wage since January 1, 2008. The minimum wage will increase a second time to \$10 per hour on January 1, 2016.

Employers need to prepare for the minimum wage increase. Also, employers should remember that state enforcement agencies have made it a top priority to stop employers from engaging in so-called "wage theft," which includes not paying the minimum wage for all hours worked.

It is time for us to examine all of our pay practices that might be affected by the minimum wage increase. There are more than you might think! Here are a few requirements.

The minimum wage increase affects employer notice requirements related to the minimum wage posting, itemized wage statements and wage notices.

First, employers must post California's official Minimum Wage Order (MW- 2014) in a conspicuous location frequented by employees. Second, California employers must provide each employee with an itemized statement, in writing, at the time wages are paid (Labor Code Section 226). Third, employers in California must provide nonexempt employees with a wage notice pursuant to Labor Code Section 2810.5.

One thing to always remember: For California employers, when state and federal law differ, you must comply with the more restrictive requirement. California state minimum wage is higher, so that is the rate that you must pay employees in California. You can find more information through www.calchamber.com. Know that some of these regulations may vary by industry.

Another challenge affecting many of us is the restriction of Second Generation Anticoagulants, making these ingredients "Restricted Materials". Effective July 1st the (CDPR) California Department of Pesticide Regulation, homeowners will no longer be allowed to purchase these products. The reason for the restriction is to significantly reduce non-target wildlife.

AG RX has four products that will no longer be available to our customers as they contain Bromadiolone which is one of the four specific active ingredients that the CDPR are focusing on: Brodifacoum, Bromadiolone, Difenacoum, and Difethialone.

The 2nd Generation restrictions (Brodifacoum, Bromadiolone, Difethialone, Difenacoum) are more dangerous than the first generation. Some may cause dangers to children as well as our non-target animals. As a home owner, it will make it a bit more difficult from a rodent standpoint; however, there are many other types of owner bait stations available.

If you have any questions, please contact one of our consultants for more information.



Ken Burdullis

AG RX -President

MeloCon® WG

BIOLOGICAL NEMATOCIDE

With growers facing shrinking choices of Nematicides due to registration changes on soil fumigants, the California registration of Melocon® WG Nematicide is welcome. Melocon can be used to control many Nematodes starting with but not limited to: citrus, root-knot, burrowing, cyst, gall and stinging nematodes. We have seen excellent control on crops such as but not limited to Citrus, Strawberries, Vegetable (ie. Leafy greens, Cole crops, Carrots and Onions) and Grapes (wine and table). Melocon gives professional growers an effective Nematicide option, it kills the nematode on contact. Melocon is currently being applied to both conventional and organic farms.

The active ingredient in Melocon is Paecilomyces lilacinus. This is a highly effective parasitic fungus that kills all life stages Nematodes from eggs to adults. Formulated as a water dispersible granule, Melocon can be applied through conventional methods. The most common and most effective

method is when Melocon is applied as a chemigation. Melocon is OMRI and NOP approved, yet aggressively kills nematodes on contact.

Current uses for Melocon have been aimed at controlling Citrus Nematode (*Tylenchulus semipenetrans*) and various nematode species in vegetable crops specifically Cabbage, Carrots and Onions. David Holden (Holden Research and Consulting) works with citrus growers in Ventura County and abroad, he said, "Melocon came along at a time when Nematicide options were being limited and has proven to be a safe and effective Nematicide to my citrus growers". In addition to the timeliness of its introduction, David also mentions that, "Melocon has a robust 3 year replicated research data that is supported by 4 years grower applied successful field use. It also has the added benefit of being able to be used in season to established crops".

To gain the highest level of efficacy out of Melocon, perennial crops should be treated with a minimum of 4 lb/acre every 4-6 weeks with applications timed for root flush periods, spring and fall. Annual crops should be treated at planting/transplanting and again every 4-6 weeks after the initial application. Melocon is a Nematicide with a 4-hour REI and 0 day PHI with no buffer zone limitations. Applications in the conventional market are common because of these beneficial aspects and worker safety.

Melocon has been adopted into the Citrus market as a program. The timing of the application is 4 lbs. in May- June with a follow up application 4 lbs. in Aug- Sept. This program has turned blocks of Lemons looking to be pushed out into beautiful vigorous producing Orchards.





AG RX Employee Recipe -



Cheesecake Stuffed Strawberries

Submitted by Sonia Contreras

Ingredients:

- 1lb large strawberries
- 8oz cream cheese, softened (can use 1/23 less fat)
- 3-4 tbsps. Powdered sugar (4 tbsp. for a sweeter filling)
- 1 tbsp. of vanilla extract
- Graham cracker crumbs

Directions:

Rinse strawberries and cut around the top of the strawberry. Remove the top and clean out with a paring knife. If necessary (some may already be hollow inside). Prep all strawberries and set aside.

In a mixing bowl, beat cream cheese, powdered sugar, and vanilla until creamy.

Add cream cheese mix to piping bag or Zip-loc with the corner snipped off. Fill strawber-

ries with cheesecake mixture.

Once strawberries are filled, sprinkle graham cracker crumbs on top. If not serving immediately, refrigerate until serving.

** Strawberries can also be dipped or drizzled with chocolate**



Katie's Spinach- Strawberry Salad

Submitted by Joe Voelker III

Dressing:

- 2 tablespoons each: non-virgin olive oil, apple cider vinegar, and sugar
- 1 tablespoon each: sesame seeds, soy sauce,

- and orange juice
- 1/2 tablespoon poppy seeds
- 1/8 teaspoon paprika

Salad:

- 1 bag (5 oz.) of baby spinach
- 1 pint strawberries, trimmed and thinly sliced

Topping:

- 1/2 cup sliced almonds, toasted

Directions:

1. Whisk the oil, vinegar, sugar, sesame seeds, soy sauce, orange juice, poppy seeds, and paprika together to make the dressing. Set aside.
2. Place the spinach and strawberries in a large bowl. Top with the dressing and toss to combine.
3. Top with the almonds just before serving.



I AM AG RX— Sandy Hamlin

Sandy Hamlin does our billing and is a key member of our accounting department. Sandy has worked for AG RX for a total of 28 years.

What is your background? I was born in Oklahoma City, Oklahoma. Grew up in Lennox, Ca. Met my husband in Kindergarten. We grew up going to the same schools and Church. We were both Baptized at Lennox Baptist Church. Started dating our Senior year in High School, were married 7/11/70 and the rest is history. Will be Married 44 years on July 11. I love the Lord with all my heart and love serving Him. I worked at the Garrett Corporation in the Travel Dept for 15 years until we came to Camarillo. We moved to Camarillo in 1983.

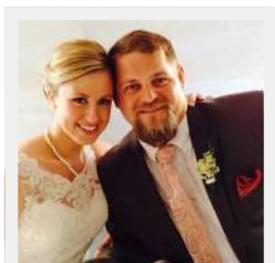
How did you start in this business? After moving from Hawthorne, CA to Camarillo, Dave Holden asked me if I wanted to interview at Pacific Pest Control in 1986. I said yes and worked for them for 7 1/2 years before the merger and we became AG RX.

What are some of your greatest challenges you face in your job? I would have to say the work order were a challenge. We have changed computer systems a few times. That changes the way we bill our work orders every time.

What are your favorite aspects of your job? The billing is always different. You have the

same customers to bill, but they buy different materials. I also love talking to the customers and helping them with problems.

What are some of your interests? I love to read, traveling, family, baseball (LA Dodgers) and babysitting my five wonderful grandchildren. I also love watching my grandchildren play soccer.



A special Congratulations to one of our very own consultants.

Mr. & Mrs. Mathew Smith

June 6, 2014



Larry Guidotti one of our Santa Maria consultants catches a whopper at Avila in San Luis Obispo.

QUARTERLY NEWSLETTER



Visit our website!

www.agrx.com

Providing our Customers with Information, Products and Services for Quality Plant Growth in a Safe and Environmentally Sound Manner while providing a Safe and Productive Work Environment for our Employees.

Visit us at any one of our locations

OXNARD -Main Office –751 South Rose Avenue, Oxnard, CA 93030
Store (805)486-5788 Fax (805)240-1737

Store Hours: M-F: 7am-5pm Sat: 7am-12pm

FILLMORE- 186 East Telegraph Road, Fillmore, CA 93015
(805)524-2687 Fax (805)524-1412

Store Hours: M-F: 7am-4pm Sat: CLOSED

SOMIS - 3250 Somis Road, Somis, CA. 93066
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Store Hours: M-F: 7am-4:30pm Sat: 7am-12pm

GOLETA - 6150 Francis Botello Road, Goleta, CA. 93117
Store (805)681-1686 Fax (805)681-1689

Store Hours: M-F: 7:30 am-4:00pm Sat: CLOSED

SANTA MARIA - 609 South Depot, Santa Maria, CA. 93456
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Store Hours: M-F: 7am-5pm Sat: 7am-12pm

AG RX
Employees
celebrate
Flag Day!



**Have a Fun
& Safe
4th
of July!**

Did you know?

AG RX sells charcoal?



Visit one of
our locations
for more
great buys.