

Organic Gardening Community Quarterly

Welcome back to our

collaborative newsletter! This quarterly newsletter may find you pouring over seed catalogs with a cup of hot tea in January, digging holes in February for anticipated tree planting, and hopefully, harvesting the first fruits (or green veggies) in your spring March garden.

We have worked hard to create some great articles to help inspire you along the way so sit back and enjoy the fruits of *our* labors!



Tucson Organic Gardeners

Our mission is to promote sustainable gardening and composting in the Tucson community through meetings, lectures, and publications. TucsonOrganicGardeners.org



Focused on developing a healthier, connected community through gardening and gardening related activities. WeLoveToGrow.org



Community Gardens of Tucson

Our mission is to create and support accessible community gardens with Tucsonans of diverse experience levels, abilities and cultures in order to educate, foster wellness and enhance the environment for people, plants and pollinators. CommunityGardensofTucson.org

January – March 2018

IN THIS ISSUE:

Planting Guide

Tucson Organic Gardeners News

Community Gardens of Tucson News

Pruning Your Fruit Trees

Growing Tomatoes (NOW is the time!)

Weeds of the Season – Henbit, Cheeseweed and London Rocket

Insect Friends and Foes – Planting Now for Beneficials Later

Organic Practices – Epsom and Gypsum

Resources for the Organic Gardener

PLANTING GUIDE:

			Germ. Soli	Jan	uary	Febr	ruary	Ma	roh	Ap	orii	Mb
			Temp. °F	1-16	16-81	1-16	15-28	1-16	16-81	1-16	15-80	1-15
		Artichoke/Cardoon	70-80	Т	T	Т	Т	Т	Т			
		Arugula	40-95	8T	8T	8T	8T					
		Aslan Greens	45-85	8T	8T	8T	<u>8</u> T					
		Beans (Bush)	65-85		_	~			8	8	8	<u> </u>
		Deans (Fava)	65-85 55-85	•	0	o o	8	0	0			
<u></u>		Black-eved Peas	50-65 85-95	0	9	0	<u></u>	0	0		8	
0		Broccoll	45-95	8T	8T	ST	8T				~	
		Broccoll Raab	45-95	8T	8T	8T	8T					
- 5		Brussels Sprouts	45-95	Т	T							
U U		Cabbage	45-95	8T	8T	8T	8T					
		Caulifiower	45-95	8T	8T	8T	8T					
<u> </u>		Carrots	45-85	8	ω	8	8	8	8	8	8	
		Chinese Pole Beans	65-100								8	8
		Collards	45-95	8T	8T	8T	8T	_	-			
		Com	50-35		_		8	8	8			
(χ^{*})		Cucumber (Annenian)	10-32							(P -	9T	
	88	Econiaci	75-55							-0-	T	
		Endive	65-80	8T	8T	8T	8T					
		Garlic/Shallots	45-85	Ť	T				-			
•	, te	Irish Potato ²	45-75	T	Ť	Т	Т					
60		Jerusalem Artichoke ²	70-80		T	т	T	т	Т	т	т	T
- 75	as a	Kale	45-95	8T	BT.	ST.	BT					
		Kohirabi	65-80	8T	8T	8T	8T					
		Lesf Lettuce	40-80	8T	8T	8T	8T					
		Meions	75-95								Т	8T
1		Mustard Greens	45-95	8T	8T	8T	8T					
U		Okra	70-95									8T
(2)		Onion/Leeks	50-95/70-75									
		Parsnip	50-70	_	-							
15		FCOS	40110	8	8		_		_		-	- 27
		Feppers Recented			_				oт	oπ	OT.	
2		Pumpkin- Redicti	/ U-35 4 6-60			~			9	0	01	
1.0		Rutshada	40°50 80-75	0	0	0	0	0 0	0	0	0	
/ N		Roinach (Winter)	45-75	Ť		e ST	8 BT	- 0	- 0	- (C)		
\mathbf{U}		Spinach (NZ & Malabar)	70-80			- W I	91				ВТ	8T
`		Squash (Summer)	70-95						8T	8T	8T	8T
		Squash (Winter)	70-95						8T	8T	8T	8T
		Sweet Potato	75-85								T	Т
		Swiss Chard	50-85	8T	8T	8T	81	8T	8T			
		Tomato	60-85				T	T	T	T	T	
		Tumip	60-105	8	8	8	8	8	8	8		
		5° 11	EE.70								OT	07
		Chiver	50175 55.75	-							<u>a</u> i	
		Classics	50115 55.75	8T	8T	ST	BT					
O	-	DII	60-80	8T	8T	ST	ST		-			
	202	j, A lest [™]	85-75	Т	T	Т	Т	т	т	Т	т	(T I
		Oreoano	45-80	Ť	T	т	T	T	Ť	Т	T	
	d)	Parslev	40-90	Ť	T	т	T					
		Rosemary	50-80	Ť	T.	T	T		T	Т	Т	
		Sage	60-80	Т	T	Т	Т	Т	Т	Т	Т	T
		Tarragon (French)	60-80					Т	Т	Т	Т	Т
		Thyme	60-80	Т	T	Т	Т	Т	Т	Т	Т	Т
				Notes:	1. 11.00	antina s	eeds inv	ioors n	lant 6 ×	eeks in	store als	ntina fin
				 The side side 	the set parts	and and the set	an tatatat 1000	anan ny fis	and a set of the	and and the first staffs	anne a pairte	a na sanga sang

2	Potetnes	and lies	retaile <i>r</i> n.	Artichology	Jacob V	itented.	fersen.	ice.e.o
- 1	a presentation of the set	Property and the second	a and a second second second	Contraction of the Statements	and the late	PT MAR STOCKED	to sea con	All the first states

3. There may be restrictions when planting pumpkins and mi

4. Quality herb production is best achieved with filtered sunk

 Speak to the site coordinator about Amaranth, Asparagus, Lemon Baim, Lemon Verbena, Lemon Grass, Lima Bean.

Copyright 2009, Commu

Le	gend
	Unwise to plant
8	Sow Seeds
8T	Sow Seeds & Transplant
Т	Transplant

Rev. D

TUCSON ORGANIC GARDENERS NEWS:

Tucson Organic Gardeners January 2018 MEETING

Where: St. Mark's Presbyterian Church 3750 E. 2nd St.

We meet in the Geneva Room which is located in the NE corner of the rear courtyard. To find us park in the rear (north) parking lot and follow the covered walkway on the east side of the courtyard all the back.

When: Tuesday, January 16, 2018 Doors open at 6:45 p.m. Q & A and doorprizes a little after 7:00 Speakers start at 7:30 p.m.

We are starting the year with a presentation by <u>two</u> speakers. Both have chosen to take their knowledge of organic gardening and agriculture to the next level by teaching and promoting organic methods as a way to empower younger and future generations to better and more sustainable lives. Come, listen, and be inspired by the wider relevance of organic gardening techniques!

Michael Kotutwa Johnson's talk "Importance of Hopi Agriculture: What it Means to Us All" will look at the organic movement from a Hopi perspective. Farming or gardening is about more than just planting seeds; it is also about bringing forth and raising life and all the values and morals that come with such a task.

Mr. Michael Kotutwa Johnson is a PhD Candidate in the University of Arizona's School of Natural Resources and the Environment and an avid Hopi traditional dry-land farmer. He researches Hopi agricultural conservation techniques with the intent of encouraging and sustaining the "Hopi Way of Life" for subsequent generations of Hopi People. His future research will look at Indigenous agricultural systems across the globe in hopes of revitalizing or keeping intact traditional methods and heirloom seeds for future generations of Indigenous people. Michael is co-author of "Hopi People of the Land: Sustainable Agriculture on the Hopi Reservation." He holds a Master's Degree in Public Policy from Pepperdine University and a Bachelor's of Science degree in agriculture from Cornell University.

Moses Thompson will tell us about an ongoing "agri-voltaic" experiment being led by UA researcher Dr. Greg Baron-Gafford at three locations: Biosphere 2, Rincon High School, and Manzo Elementary School. The experiment is gathering data to answer questions about the potential benefits of co-locating solar panels and vegetable gardens:

- Can growing under the cover of solar panels extend seasons and conserve water?
- Can irrigation and transpiration cool solar panels to create power more efficiently?

Mr. Moses Thompson works in a shared TUSD/UA position to support school garden programs across the Tucson area. Moses has a particular interest in the social-emotional benefits of school gardens in poverty-stressed communities. In 2006, Moses started the nationally recognized school garden program at Manzo as a part of his school counseling program and now works to spread similar program components throughout TUSD. He is the recipient of numerous awards for his civic and educational work.

TOG Lectures are Free and Open to the Public. All Welcome!

COMMUNITY GARDENS OF TUCSON NEWS:



SAT JAN 27TH MANSFIELD GARDEN PARTY 11AM - 2PM

More info at:

https://northwestneighborhood.blogspot.com/

www.communitygardensoftucson.org/

Meet Our Executive Director: Elizabeth Smith is honored to be following in the footsteps of her Gardening Mentor George Brookbank, Community Gardens of Tucson's original Executive Director and Founder. Elizabeth was instrumental in initiating the revitalization of Mansfield Community Garden (see details above for our re-dedication event) and is spearheading the development of CGT's newest upcoming garden, the Ace Acre in Rita Ranch. In her words, "I am honored to serve the gardening community throughout Tucson in many different roles but this position is exceptionally rewarding. Seeing the many ways CGT's large gardening community interacts with plants, insects, soil and all of nature (including us humans) is inspiring and educational to say the least. Each gardener is as unique as each garden and it's such a pleasure to get to know them all." Elizabeth encourages anyone who might be interested in serving on the CGT Board along with her to please feel free to reach out to Admin@CommunityGardensofTucson.org.

LEARN ABOUT GROWING FOOD @ MANSFIELD GARDEN

CELEBRATE THE NEW GARDEN SCULPTURE

LUNA PRESENTS LIVE MUSIC TRAVELERS, ONE HEART BEAT, SILK CERAMIC BRAINS

FACE PAINTING

LUNCH

PROVIDED!

a R Liggi

PRUNING YOUR FRUIT TREES

By Elizabeth Smith



As the cold weather hits, it's time to think about pruning fruit trees. The ideal time for pruning is anytime after the leaves fall and before bud break in the spring (although dead branches can be cut out any time of the year). The reason we prune when trees are dormant and have dropped their leaves is not just so it's easier to see what we are cutting out. Its also so we don't encourage new growth at the wrong time of year when that tender new growth could be susceptible to cold damage. After the leaves drop, the tree should be dormant and growth has stopped until the spring when the sap starts running again. Please note: it is no longer advised to use pruning paint because it has been found to trap moisture which can cause issues at the cut.

There are 3 main reasons to prune fruit trees: 1) Shaping. Pruning can be used to shape a tree to a pleasing shape, size or for strength and resiliency. "Heading back" is a term used to describe cutting back branches that are growing in an undesirable direction or shape. 2) Removing dead or diseased branches. Deadwood weighs a tree down and diseased branches can spread to the entire tree so they both need to be removed 3) Fruit production. Pruning keeps trees healthy and encourages new growth. Sometimes, a tree will send out branches from below the graft line. Most fruit bearing trees are now a combination of 2 trees, a root stock tree and a fruit stock tree (or scion). The bottom portion of the tree is a variety that is more disease resistant, frost tolerant, heat tolerant, or whatever desirable growing traits the nursery is going for. The top portion of the tree is chosen for its superior fruit production. If suckers form from below this scarred graft line, they will probably not produce quality fruit so they need to be pruned away.

Please note, citrus is an exception to the normal pruning rules because citrus doesn't require pruning since they are actually a bush not a tree. If you do decide you'd like to try and create a more tree-like shape for your citrus tree, never cut off more than 20% of the branches at any one time or you will trigger sucker growth which does not produce fruit but instead saps energy away from fruit producing branches.

For a more in-depth look at pruning fruit trees, visit: http://blog.countrytrading.co/2014/07/23/an-introduction-to-pruning-fruit-trees/

GROWING TOMATOES – ITS NOT TOO EARLY!

By Melody Peters



Beth McCullough's beautiful and bountiful harvest

The tomato growing expert we had hoped would talk to us about growing tomatoes in Tucson was out of town during our December meeting so three TOG Board Members, Beth McCullough, Barbara Ho and I, pooled our knowledge for a presentation. Our TOG president, Mohye, has posted the Power Point on our website so we won't use space here for a recap of that. Here is a link for the slide show: http://www.tucsonorganicgardeners.org/wp-content/uploads/2018/01/Growing-tomatoes-in-Tucson.pdf

Brandon brought in a cylindrical tomato cage, 5 feet high and 2 feet in diameter, that he had fashioned from remesh, a heavy welded wire grid used to reinforce concrete. Since 2 feet is the recommended planting distance between tomato plants, he can line the cages up next to each other so they don't fall over. The four-inch openings in the remesh allow plenty of access for harvesting and tending the plants.

Brandon also took issue with the oft repeated opinion that we don't have problems with growing heirloom tomatoes in Tucson, citing the Community Foodbank's garden serious problem with root knot nematode. It is hard to rid a garden of ground dwelling nematodes once you have them, and sadly the problem is also showing up in various community gardens around town. The Foodbank no longer grows heirloom tomatoes. After trial and error it found that it could successfully grow a root knot nematode resistant hybrid called "Sweet Chelsea." This is a red cherry variety that Brandon says is robust and prolific.

Barbara Ho presented her method for growing tomato starts without costly equipment such as heating mats and grow lights. Her secret? Start early in November when you can take advantage of a sunny spot outdoors. She sows a bunch of seed in a flower pot and then follows the protocol for repotting once the seedlings have put out two sets of true leaves. She shared a neat trick for separating the seedlings without damaging them. She places the mass of seedlings in a basin of water, moves them around gently to encourage the dirt to fall away, and then uses a chopstick to separate the little plants. Now that is something you are not likely to read in a gardening book! So keep coming to TOG meetings to hear unique tips from other gardeners and to share some of your own!

TOG meets the third Tuesday of the month from September through April, typically at 7 p.m. Our meetings and lectures are free and open to the public. You do <u>not</u> need to be a member to attend.

WEEDS OF THE SEASON

By Melody Peters

A few week ago, around the time of the winter solstice, I noticed that a weed with clasping lobed upper leaves was filling in between my wildflower seedlings. In past winters I had pulled a fair amount of this particular weed, but never had I seen so much of it before. Perhaps its proliferation relative to the wildflowers I had sown in November has to do with our scanty rains. In any case I felt it time that I put a name to this weed, so when Elizabeth came over to my place to work on the newsletter I showed it to her. She snapped a few photos with her smart phone and then used her free Weed ID phone app to screen a few suggestions. It was difficult at first to get an ID match as my weed hadn't started flowering, but by photographing the weed from various angles to get the crucial information about the shape of the leaf and its relation to the stem, Elizabeth did ultimately get her app to correctly identify my weed as "Henbit." I was able to verify the ID by comparing online photos of flowering henbit with my memory of the weed in bloom from previous years of pulling the stuff.

Henbit, *Lamium amplexicaulis*, is a low growing winter-to-spring annual indigenous to Eurasia and North Africa, but naturalized throughout North America. Its square main stem is a clue that it is a member of the mint family as well as its genus name (the mint family is named Lamiaceae). Other common characteristics it shares with many members of the mint family are hairy stems, opposed lower leaves and fused upper leaves that clasp the main stem. The form of a plant's flowers are often the best clue to nailing its identification; the henbit flower is purplish-pink, tubular at the base, and irregular at the opening with a single convex lip at top and a spotted three lobed lower lip. <u>Uses:</u> The plant is considered an edible herb, by humans as well as by chickens, and you can even find recipes using it online. Its flavor is mild (to the point of being bland) and it has a good nutritional profile. (Warning: We mention the edibility factor for interest only. <u>Please do not eat any plant unless you have complete confidence in your ability to identify it</u>.) Henbit produces an average 2000 seeds per plant. I have been beguiled by the pretty blooms in the past and have been reluctant to pull it, so now I have a real infestation. To remove henbit allow it to grow a few inches so that the tap root does not break when you pull it.



Henbit whole plant and detail of flowers

Cheeseweed Mallow (*Malva parviflora*), a very common weed in the urban garden and wastelands, it hails originally from the region extending from Mediterranean to India. Its broad leaves resemble those of the classic garden geranium, with five to seven lobes, and are often somewhat pleated. Leaves and flowers are borne on rather long stems coming from the center of the plant. The plant is taprooted, so wait until the root is strong enough to allow you to pull it without breaking, but avoid allowing the plant to go to seed or you will be pulling a lot of it in the future. This plant can get quite large and sprawling. <u>Uses</u> (for experts only!): Both leaves and fruits are reputed edible and their mucilaginous content makes them a good soup thickener. Herbalists claim that compounds in the leaf have anti-inflammatory and antioxidant properties. <u>Warning: when grown near areas of fertilizer run-off, this plant will accumulate toxic levels of nitrate. Investigate before you consume!</u>



Cheeseweed leaves radiate from a point above its taproot. The common name derives from the fruits' resemblance to cheese wheels.

London Rocket, (*Sisymbrium irio*), another very common annual weed, is a member of the brassica family and native to Europe. Like arugula (sometimes called rocket or roquette), it grows first as a basal rosette of deeply lobed leaves before sending up a single flower stalk which can be branched and bear additional smaller leaves. Flowers are yellow, and like all brassicas, have four petals. Flowers are followed by long thin seed pods. In other words the form of this weed follows the familiar pattern of the brassicas you grow in your vegetable garden – Arugula, broccoli, cauliflower etc. <u>Uses:</u> I have been told that this weed is edible but not good tasting. Others say it contains dangerous levels of oxalates and should not be eaten. It has been used as an herb for chest congestion, sore throat, fever and asthma.



London Rocket grows first as a basal rosette. Its slender seed capsule is called a "silique."

Resources for weed identification:

Free Phone apps: "Picture This" and "Plant Snap."

UA Cooperative Extension Weed Photos, limited but local weed gallery: <u>https://cals.arizona.edu/crop/images/database/weeds/index.html</u>

UC Davis -- excellent online weed gallery that will help you narrow down your weed specimen by looking at its form: <u>http://ipm.ucanr.edu/PMG/weeds_intro.html</u>

PLANT FLOWERS NOW TO SUPPORT BENEFICIAL INSECTS

By Melody Peters

Organic gardening experts are quick to remind us that if you grow healthy plants, primarily by maintaining healthy soil, you should have few problems from insect pests. While it is true that healthy plants produce chemicals that deter insects, there are times when our much cosseted vegetables get munched by insects. We may feel the need to turn to organic bug sprays or removal of infected plants when we have a serious insect infestation, but for mild infestations it is best to allow beneficial insects to control the pest population.



Allow any member of the parsley family to blossom and you will attract a variety of beneficial insects to your

Which insects provide this wonderful service? Most of them can be

categorized as either predators or parasites. **Predators** hunt pest insects for food and include the wellknown and visible: ladybugs, praying mantises, green lacewings, large wasps (like yellow jackets), robber flies, Syrphid flies and ground beetles as well as the much smaller true bugs such as Assassin Bugs, Minute Pirate Bugs, Damsel Bugs and Big-Eyed Bugs. (True bugs have sucking mouth parts.) **Beneficial parasites** lay eggs inside or on the bodies of pest insects; upon hatching the parasitic larvae feed off their hosts, eventually killing them. Beneficial parasites include Tachnid Flies and several different families of tiny wasps --Braconid, Chalcid (including Trichogramma) and Ichemeumonid.

It is in their larval stage that most beneficial insects feed upon pest insects. Predators like ladybugs, green lacewings, hoverflies and the small true bugs predators depend on nectar and pollen during their adult phase. The same is true for the multitude of parasitic wasps and flies. Flowers, therefore, play an important role in your organic vegetable garden.

When considering how to provide nectar and pollen for beneficial insects, first take stock of what you have already growing in your garden. In late winter or early spring I have found flowering cilantro (coriander) sometimes gets covered with native ladybug larvae. Other members of the parsley family, including caraway, carrot, chamomile, dill, fennel and parsley itself, likewise attract and provide nectar and pollen for not only for adult ladybugs, but also for the adult lacewings, hoverflies, parasitic wasps, tachinid flies, minute pirate bugs, damsel bugs, big-eyed bugs and assassin bugs. Likewise the flowers of brassicas, chicory and lettuce provide food for these insects. If you planted these herbs and vegetables in the fall some will be bolting in a month or so. To attract the ladybugs and lacewings that will help keep your aphids under control make sure to let these plants flower. If you are afraid of too many volunteers from seed (fennel is notorious for reseeding) remove seed heads before seeds have properly formed.

Many of the beneficial insects that prey on harmful garden insects are actually quite small (the smallest wasps are approximately the same size as the largest bacteria!) so they seek pollen and nectar from small flowers that are easily accessible. **Common garden flowers** that meet the requirements of minute predatory insects include: Alfalfa, Alyssum (both Sweet White and "Basket of Gold"), and edging Lobelia (*L. erinus*), and a large selection of composites like asters and sunflowers. Although you may think of the latter as large flowers, composites are made up of many tiny disc flowers surrounded by a smaller number of ray flowers. Ray flowers have the large petals that we think of as the flowers' only petals, but ray flowers are often sterile so you are more likely to observe insects gathering nectar from the tiny central disc flowers. The many **garden variety composites** that will help you maintain your population of beneficial insects include: Black-eyed Susan, daisies, chrysanthemum (try the edible Shungiko), coreopsis, thistle, sunflower, yarrow and zinnia. Members of the **mint** family also provide



such as this little Syrphid fly supping from a flower of the Desert lavender (floptic emorgi). Syrphid flies, aka haverflies, are often bee mimics and this one is banded black and white like many of our native solitary bees. You can tell it's a fly, nat a bee, by the very large eyes. Both insects photographed at the flincon Heights Community Garden, Tucson. food for beneficial insects so go ahead and plant: Crimson thyme, Lemon Balm, pennyroyal, and spearmint.

Most of the plants above are common garden annuals, but to assure that your cast of beneficial insects sticks around through the year, plant flowering perennials, with an emphasis on native ones. If you routinely dig up your vegetable plot once or twice a year it may be more practical to dedicate space for a separate herb and pollinator bed close to your vegetable plot. Along with perennial herbs plant the following **native composites:** Asters (Bigelow or Day-of-the-Dead Daisy), Blue Mistflower, Chocolate Scented Daisy, Cosmos bispinnatus var. "White Sensation," Desert marigold, Fleabane, Gaillardia, native Goldenrod, groundsel, and Rudbeckia. Natives in the mint family that attract beneficial insects include: Mountain Mint, Monarda species and agastache species including Anise Hyssop. To support a diversity of local native beneficial insects include native flowering shrubs that provide food and habitat at different heights and make sure to provide hunting perches for robber flies and damsel flies. By planting native you foster our native beneficial insects, a worthwhile practice in itself, and you are more likely to keep your beneficial insects around long-term.

If you feel you need to purchase beneficial insects bear in mind that they can be pricey and that the species you buy may not be native or adapted for long-term residency in your garden. To get the most for your money make sure that you have identified your insect pest correctly in order to match up the purchased species with its target pest.

Resources:

To look up insect pest by garden crop go to: http://ipm.ucanr.edu/PMG/crops-agriculture.html

Arizona Bug ID (general): https://www.insectidentification.org/insects-by-state.asp?thisState=Arizona

Pocket Guide to Beneficial Insects PDF: https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/nmpmcbr10943.pdf

Arbico Organics can identify pest: <u>https://www.arbico-organics.com/ask_doctor_buglady</u> and offer solutions: <u>https://www.arbico-organics.com/category/beneficial-insects-organisms</u>

EPSOM SALTS AND GYPSUM – A GOOD CHOICE FOR TUCSON GARDENERS?

By Bridget Barber, Tucson Organic Gardeners

Short answer is "No" on the Gypsum (Calcium disulfate) and "Meh" on the Epsom Salts (Magnesium sulfate). Let's unpack why.

While there are many nuanced pockets of soil composition in the Tucson basin, an accepted generality is that Tucson native soil is small particle sandy, soil pH of low 7s, riddled with pockets of impenetrable caliche and practically devoid of the organic material necessary for growing food or non-native flowers. When you food garden in Tucson, you are planting in imported non-native soil, whether you make it yourself or buy it at a garden store. It's all additive, and it's imperative to keep feeding that soil to replenish the nutrient leach. Let's look at two familiar salts.

<u>Gypsum</u> is used mostly in large agriculture as a soil spacer to de-compact soils and improve drainage. It has a false reputation of being able to reduce soil pH and currently there is a twenty year trial to research this very point and debunk the myth, as detailed in agvise.com article (link below). For the home gardener, applying Gypsum is not cost effective nor is it necessary; far more effective would be a committed plan to make compost and apply bi-annual compost layers to provide a rich growing environment, and the 24K gold plan would be to use aerated compost tea applications to feed the soil to activate and rejuvenate its microbial environment which will provide optimal trace bioavailability.

<u>Epsom Salts</u> can provide a tonic for plants by boosting the immediate magnesium availability in soil for heavy feeders like tomatoes, peppers, roses. It will have zero effect on greens or peas or beans. Magnesium (Mg) is crucial in the uptake of nitrogen and phosphorous, both necessary for plant health, but unless your soil is Mg deficient you won't see any benefit. The most beneficial way to apply Epsom Salt is to spend the whole day in the garden, run a tub of hot water and shake in some Epsom Salts, soak your feet and then water your plants with it. You'll get the benefit and your plants may or may not.

While it's appealing to think a bit of this and a shake of that will improve your gardening results, the single best fertilizer is the gardener's own shadow. With good compost, regular crop rotation, mulching and a deep (root zone target) watering schedule and being in the garden every day, you can achieve great results without resorting to the fringe elements of Gypsum or Epsom Salts.

Resource: <u>https://www.agvise.com/educational-articles/high-soil-ph-can-we-fix-this-problem/</u>

GARDENERS' RESOURCES

✓ Free Smart Phone Plant ID Apps: "Picture This" and "Plant Snap"

✓ Tank's Green Stuff: Organic Compost and more

✓ Tucson Organic Gardener's Spring Plant Fair March 17th, 9am -1pm



✓ Workshops

