

Warm Springs OSU Extension

Zucchini: abundant crop worth the effort

by Yvonne Babb
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You know when your gardening work is worth the effort when you harvest your first zucchini.

I recently added plump juicy raspberries from my backyard vines into my zucchini bread recipe with whole grain flours and walnuts; the bread was a week-long treat, and flooded me with childhood memories.

Where I grew up, zucchini plants seemed to erupt from the fluffy, black Illinois soil. In July and August it was the plant that kept on giving. You knew it was the season when three people showed up at a potluck with zucchini bread.

The local prank was to leave a zucchini on your neighbor's doorstep, ring the doorbell and run. That's when you used to pick them close to 2 feet long and 3 inches diameter.

Zucchini is a warm weather crop. Here in Central Oregon they take more effort to grow, especially since a frost can occur almost any time of year.

Zucchini is a member of the squash family, cucurbitaceae, (cue-ker-bitay-see-ay). And they do very well once the summer season gets started.

They need soil temperatures of 70–95 degrees Fahrenheit to germinate. Harvest

is in 60 to 80 days, depending upon your microclimate and the number of cool evenings we have.

Since it takes so much effort and space, I decided not to grow zucchini, but rather to grow tomatoes. To create a warm environment for tomatoes I built a small hoop house with heavy plastic and electrical conduit piping.

Then I added fresh manure as an active composting layer beneath about 4 inches of topsoil. Apparently, the manure housed several zucchini seeds which sprouted once the soil warmed.

Not only did the hoop house protect the young plants from freezing in June, but it protected them from hail storms and extreme temperatures in July and August. As temperatures cool in the fall, the hoop house will also extend the season.

So it sounds like growing zucchini isn't too hard after all. Is that all the effort necessary to get those abundant log-sized veggies?

It is not too hard if you have the time to invest in a hoop house. And yes, it is worth the effort; however, it is not just the environment you need to produce the "fruit."

Cross pollination

To get the fruit, or what we call the zucchini, cross pollination is essential, since



the pollen must be moved from the male flower to the female flower for fertilization to occur.

While you are pressing the snooze button or drinking your morning java, squash bees are already courting or mating amongst the open squash blossoms.

While gathering pollen and nectar, they are moving the pollen between the male and female flowers, or cross pollinating.

This tradeoff is of mutual benefit to the insects, which mate and then carry on with their life cycle.

The female bee will collect pollen to feed the eggs she will lay in a tunnel in the soil, often beneath the squash plants a foot or more down. While the female is nest building, you might find the male taking a midday siesta in the spent blossom that twists its way closed for business.

Squash bees

I was so fascinated by these squash bees I strolled out to the garden between

5:30 and 7:30 a.m. in early August, coffee in hand, to check them out.

At first I saw nothing, but then within five minutes I saw a robust bee land on the male flower. It crawled around, became coated with pollen and flew off.

Only three squash blossoms were open and receptive, so it soon landed on the only female flower, crawled in and circled the brain-like female pistil, wa-la! Maybe I will have zucchini after all.

Pollinators in synch

By the time the exotic honeybees arose mid-day, most of my zucchini flowers may have already been pollinated for now they were tightly closed. This is why native bees can be more effective pollinators, for the timing of the native plant and the native pollinator is in synch.

The Nature Conservancy analyzed the benefits of native pollinator to New Jersey farms. The study found native bees are twice as effective as managed honeybees at

pollination, which was demonstrated by a large team of researchers across a wide array of crops around the globe.

Additional research found that in many cases squash bees can provide up to 100 percent of the squash plant's pollination needs.

2 pollinator groups

There are only two groups of native North American squash bees, *Peponapis* and *Xenoglossa*, which are highly specialized in pollinating squash flowers. They specifically seek out pollen and nectar from melons, pumpkins, squash, cucumbers and gourds.

If the bees have quality habitat, then the farmer or gardener does not need to supplement the native bees with managed honeybees.

In the Nature Conservancy Squash Fact Sheet, the squash bees support the 9.6 million dollar New Jersey squash industry; however, as human populations increase and habitat for bees declines, farmers may need to compensate by using and paying for managed honey bees, which are obviously not on the same schedule as squash plant as described above.

Creating habitat

To ensure squash bees have adequate habitat in your yard follow these simple

steps:

- Avoid deep tillage to prevent damaging bees' nests.

- Provide a source of water by maintaining a shallow canal or depressions in the fields that hold water. These can be created by sinking planter trays or bird baths in the soil and filling them half way with sloping gravel to ensure bees have safe access to the water.

- Avoid overhead watering during the early morning hours to prevent washing pollen off the flowers.

- Choose a toxic free environment. Pesticides, insecticides and fungicides can all be harmful to soft bodied bees that can accumulate toxins in their bodies over time.

I have the hoop house. I have the raised beds. I have a source of fresh manure and I have created healthy bee habitat. I am sold! Watch out, you just may get a zucchini on your doorstep next season, and I highly advise you to make bread and join the fun.

Take your coffee and camera out to the pumpkin patch for a short documentary at dawn that you won't regret. Call me at OSU if you have questions and come help me in the garden. Call me for a Tuesday tour.

Yvonne Babb, OSU gardening coordinator, 541-480-6997.

PUBLIC NOTICE - UMATILLA TRIBAL LAND BUY-BACK PROGRAM

UMATILLA LAND BUY-BACK PROGRAM ANNOUNCES WAVE 1 – 150 PRIORITY ALLOTMENTS FOR ACQUISITION.

The Confederated Tribes of the Umatilla Indian Reservation's Board of Trustees provided guidance, through Resolution 12-074 and 13-047, in prioritizing 400 allotments on the Umatilla Indian Reservation for acquisition through the Department of Interior Land Buy Back Program (DOI Program).

In developing the priorities the following was considered:

- Culturally sensitive allotments including cemeteries and access to cemeteries
- Highly fractionated allotments owned by non-CTUIR members
- Highly fractionated allotments with mixed ownership
- Allotments where CTUIR's ownership is over 50%
- Allotments which CTUIR's departments or programs designated as priority (for example: for physical access to CTUIR's fee property, for possible further developments for public utilities or public use, etc.)
- Willing sellers
- 232 Mineral only allotments

What is the Land Buy-Back Program?

The Cobell Settlement became effective on Nov. 24, 2012. As part of the Cobell Settlement, the DOI Land Buy-Back Program received \$1.5 billion for purchasing undivided trusts interest in trust allotments owned by indi-

vidual Indians. The end result is meant to reduce the level of fractionation in trust allotment land titles across Indian Country. The DOI Program will only purchase interests from individual owners who are willing to sell and return those interests to the tribe with jurisdiction over the allotment. The DOI Program has until Nov. 2022 to purchase these interests.

How is the CTUIR involved?

In May 2014, the CTUIR and DOI signed a Cooperative Agreement where the Umatilla Tribal Land Buy Back Program (Umatilla LBBP) agreed to conduct three of the four components of the DOI Program plan: Outreach, Land Characteristics and Appraisals.

Out of 150 fractionated reservations in the United States, the Umatilla Indian Reservation (UIR) is the 28th most fractionated reservation. The Umatilla LBBP goal is help consolidate the UIR trust land base for the beneficial use of the CTUIR as a sovereign nation.

How is the Department of Interior Land-Buy Program involved in the CTUIR Cooperative Agreement?

The DOI Program will mail the Offer Packet to landowners as the fourth component of the Cooperative Agreement with the CTUIR.

The offer packet will include: 1) Cover letter and Instructions; 2) Deed (must be notarized); 3) Purchasable Interests Inventory; and 4)

Tract Maps. A postage-paid envelope is also included.

Landowners must decide fairly quickly on whether to accept the DOI offer because the offer is good for 45 days after the date on the cover letter. Landowners will be paid the fair market value for the tracts if they choose to sell, plus an additional payment of \$75 for taking the time to complete the offer package.

The DOI purchases the undivided trust interests with the Cobell Settlement funds that were set aside to reduce the level of fractionation on Indian reservations. The interests purchased from these funds will be held in trust for the CTUIR.

How is the Fair Market Value of the land determined?

An appraisal by a licensed appraiser will determine the Fair Market Value that will be offered for purchase of all individual interests. An appraisal is an act or process of developing an opinion of value by researching many factors, including location, local market values, condition of the property and sales of comparable properties located near the subject property.

On June 15, 2014, the Umatilla LBBP completed and submitted the first 150 appraisals to the Office of Special Trustees Office of Appraisal Services (OAS) for review and completion.

The Umatilla LBBP anticipates the first round of offer packages may be mailed in September after the OAS completes their review on the 150 allotment appraisals and the BIA has calculated values for the 232 mineral only allotments.

Umatilla LBBP will complete the appraisals of the 400 allotments in three Waves. The appraisals will be completed and submitted to OAS following this timeline:

Wave Appraisal Deadline: June 30, 2014.

Number of Allotments: 150.

Appraisals to OAS Report Date: June 15, 2014.

Review completed and offers packages mailed: TBD.

Wave Appraisal Deadline: Sept. 29, 2014.

Number of allotments: 150.

Appraisals to OAS Report Date: TBD.

Review completed and offers packages mailed: TBD.

Wave Appraisal Deadline: Dec. 31, 2014.

Number of allotments: 100.

Appraisals to OAS Report Date: TBD.

Review completed and offers packages mailed: TBD.

How can I be involved in the Umatilla LBBP if I am a fractionated owner of one or more of the allotments listed in this notice?

- Review your quarterly Individual Indian Monies (IIM) statement mailed to you from the Office of Special Trustee to see if you own a fractionated interest in Wave 1 allotments. The statement will list your Real Property Assets. If you need assistance you may contact the Umatilla LBBP Coordinator at 541-429-7490.
- Consider whether you want to sell your interests in an allotment (willing seller).
- Update your contact information by calling the Umatilla LBBP Call Center

Listed below are the **Wave 1 allotments** which have been appraised and submitted to the DOI LBBP OAS. The list does not include the mineral only allotments.

537	1135	C165	UM8	WW53
553	1140	C166	UM15-A	WW56-D
555	1152	C167	UM15-C	WW85
612	1264	C168	UM19	WW86
627	1269	C169	UM23	WW89
676	1275	C177	UM29	WW91
677-B	1287	C178	UM43	WW92-A
678-A	1318	C179	UM72	WW92B
678-B	1339	C184	UM81	WW96
679	C3	C194	UM98	WW124
681	C15	C195	UM115	WW128
730	C25	C208	UM122	WW131-A
747	C41	C210	UM124	WW147
825	C42	C211	UM126	WW148
866	C44	C213	UM131	WW151
867	C45	C230-F	UM141	WW162
894	C51	C257	UM143	WW168
984	C58	C299	UM156	WW168-A
1015	C60	C304	UM161	WW168-B
1050	C68-B	C307	UM172	WW173
1052	C69	C312	UM202	WW178
1055	C80	C315	UM206	WW455
1057-B	C100	C330	UM207	WW456
1066	C105	C343	WW21-B	WW457
1070	C113-A	C344	WW26B	WW459
1121	C114-B	C369	WW37	WW460-A
1122	C116	C371	WW44C	WW472
1128	C133	C372	WW46	WW479
1129	C134-A	C373	WW48	WW481
1131	C139B	C396	WW52	WW483

toll-free at 1-855-359-7434 or the LBBP Coordinator 1-541-429-7490.

- If you do not want to sell your fractionated interest in an allotment on the Umatilla Indian Reservation you do not need to do anything when you receive an offer letter

- If you own fractionated shares of allotments on other reservations you may contact the Office of Special Trust Beneficiary Call Center at 1-888-678-6836 for assistance.

Wave 2 – 150 allotments; and Wave 3 - 100 allotments, will be announced as they are finalized.

You may contact the Umatilla Tribal Contact Center at 1-855-359-7434 or the Umatilla Tribal LBBP Coordinator:

Rosenda Shippentower at 541-429-7490 with any questions or comments.