Hydroponics: speed vegetables to your table

CORVALLIS — Ask experienced gardeners what makes their garden grow and they'll come up with the same response: great soil

Good answer, but not the only one. The same crops grown in soil thrive in water, too, as long as there are nutrients and oxygen involved.

In fact, vegetables grown hydroponically root and grow faster than traditionally grown plants, said Barry Burnsides, an Oregon State University Extension Service master gardener. This ages-old system uses a mixture of water and nutrients to grow plants inside or out. He does both, but prefers the outdoors because there's no need for lights.

"You can grow any plant in hydroponics if you use the proper system," said Burnsides, who spent months researching hydroponics and building four of the six types of systems. He grows lettuces, greens, peppers, cilantro, cucumbers, basil and even tomatoes, melons, squash and cucumbers on trellises.

He said the easiest system is the floating raft method. In its simplest form, a floating raft system consists of a sheet of foam with holes cut in it for the net pots that will hold the plants. The foam floats on a tub containing water, nutrients and oxygen. The oxygen is added to the nutrients using an aquarium pump pushing air through a 1-inch porous soaker hose. More nutrient mix-



ture is added as the plants take it up.

Burnsides also recommends the nutrient film technique (NFT). In that case, pipes with holes drilled in them for plants are positioned horizontally at a slight angle so the water easily moves through with the help of gravity. The nutrient solution is moved by a small fountain pump through a ¹/₂-inch line to the highest point and flows through the pipe and over the plant roots back to the storage tank. An aquarium air pump is used to add oxygen to the nutrients in the storage tank.

"Hydroponics is efficient," Burnsides said. "It takes less water than growing plants in soil. In dry areas, it's a big plus. The other place it shines is if you're trying to grow in an area with poor soil."

Hydroponic systems generally need grow lights and heat when used indoors, according to Burnsides, who will teach a class at 11 a.m. April 8 at the Josephine County office in Grants Pass. Cost is \$85 for the public; \$70 for Extension master gardeners. For those out of the area, he advises doing a search of the internet for resources. There are many how-to articles and videos as well as materials



PHOTO: FLIC.KR/P/SYU9ST

Plants take up water and nutrients that flow through a PVC pipe in the hydroponic nutrient film technique (NFT).

and kits to buy.

Though he grows inside especially to start seeds or for cuttings of things like fuchsias, rhododendrons, coleus and hydrangeas -Burnsides suggests starting with a floating raft or NFT system outdoors. Be sure to give plants eight hours of sunlight and use shade cloth with 30 percent screening during the hottest part of the year, and frost cloth for freeze and bug protection.

"It's nice to set one up next to the kitchen," he said. "You can harvest salad or stir-fry for dinner right out your back door. You don't get any fresher than that."

For most plants, Burnsides uses a fertilizer formulated for tomatoes, which is premixed with the correct amount of micro and macro nutrients. He adds it to the water and replenishes as plants take it up. Lettuce grown hydroponically is ready to harvest in 30 days rather than the 60-day cycle it takes when grown in soil. There's also the benefit of no weeds, fewer diseases and pests and the need for less space. Of course, there's always the best reason to grow vegetables in any kind of medium: the quality of the produce.

"You wind up with the ultimate, freshest veggies," he said. "The flavor and crispness and quality of what you can grow is better than what you find in the store. And to see the growth stages and know you were part of that is rewarding."



Our local elementary, middle and high school students will be taking a break from classes and other school responsibilities next week, so families can enjoy time at the beach or just a few days catching up on sleep or hanging out with friends. It's been a long winter for everyone and we've crossed our fingers that Mother Nature will bring some welcome sunshine and blue skies to our corner of the world.

PATTY TAYLOR Dutcher Columnist

Trees are beginning to blossom and bring some much-needed color and brightness to our communities, and not a moment too soon. Record-setting rainfall with flooding to low-lying Springtime is a season of areas have occurred this winter and springtime, and even the meteorologists have been surprised by the sheer amounts of rain and snowfall. Let's hope that one weather extreme follows another and that springtime will bring lots of sunshine and warm days for all to share.

Monmouth Public Library has excellent spring break programs for kids next week, with Bob the Builder at 10:15 on Tuesday, a Greenhouse make and take project on March 30 at 10:15 a.m., and the movie, "Trolls" on Friday, March 31 at 2 pm.

Independence Public Library spring break programs include Go Fly a Kite on Monday, 3-D Pens and 3-D Printer on Tuesday, Bob the Builder on Wednesday, Goofy Science on March 30 and Makey Makey Boards on March 31. All activities are at 3 p.m.

provided by health care and fitness professionals, and learn more about services available in our community. The Talmadge Health Fair is a free event, and includes a dinner which is served from 4:30 until 6 p.m. All the exhibits will be open from 5 to 7 p.m., so there is plenty of time for your family to enjoy dinner and learn about health care options in MI Town. Please contact Cheri Higgins at chiggins@centralk12.or.us or call 503-606-2462.

VOLUNTEER OPPORTUNITIES

These Polk County groups would welcome individuals who have time or expertise to volunteer. Organizations that would like to be added to this list should call 503-623-2373 or email IOnews@polkio.com.

- AARP Foundation Tax-Aide 503-930-7636
- After DARC 503-623-9501
- Arc of Polk County 541-223-3261
- Central School District 503-838-0030
- City of Dallas 503-831-3502
- City of Independence 503-838-1212
- City of Monmouth 503-751-0145
- Crime Victims Assistance Program 503-623-9268
- Dallas Area Chamber of Commerce 503-623-2564
- Dallas Fire Department 503-831-3532
- Dallas Food Bank 503-623-3578
- Dallas Kids, Inc. 503-623-6419
- Dallas Police Department 503-831-3582
- Dallas Public Library 503-623-2633
- Dallas Retirement Village 503-623-5581
- Dallas School District 503-623-5594
- Delbert Hunter Arboretum 503-623-7359
- Girl Scouts of Southwest Washington and Oregon 1-800-338-5248
- Ella Curran Food Bank 503-917-1681
- Falls City Arts Center 503-559-6291
- Falls City School District 503-787-3531
- Family Building Blocks 503-566-2132, ext. 308
- Friends of Dallas Library 503-559-3830
- H-2-O 503-831-4736
- HART (Horses Adaptive Riding and Therapy) - 971-301-4278
- HandsOn Mid-Willamette Valley 503-363-1651
- Heron Pointe Assisted Living 503-838-6850
- Independence Health and Rehabilitation
- 503-838-0001
- Independence Public Library 503-838-1811
- Kings Valley Charter School 541-929-2134
- Luckiamute Watershed Council 503-837-0237
- Luckiamute Valley Charter School 503-623-4837
- Meals on Wheels 503-838-2084
- Monmouth-Independence Chamber of Commerce 503-838-4268
- Monmouth-Independence YMCA 503-838-4042
- Monmouth Public Library 503-838-1932
- Northwest Human Services 503-588-5828
- Oregon Child Development Coalition 503-838-2745
- OSU Extension Service Polk County 503-623-8395
- Perrydale School District 503-623-2040
- · Court-Appointed Special Advocates (CASA) of
- Polk County Inc. 503-623-8473
- Polk Community Development Corporation - 503-831-3173
- Polk County Community Emergency Response Team 503-623-9396
- Polk County Museum 503-623-6251
- Polk County Public Health 503-623-8175
- Polk County Resource Center 503-623-8429
- Polk Soil and Water Conservation District
- 503-623-9680
- Relief Nursery Classroom 503-566-2132
- Rickreall Watershed Council 503-623-9680
- SABLE House 503-623-6703
- SALT (Senior and law enforcement together)
- 503-851-9366
- Salvation Army 503-798-4783
- SMART (Start Making A Reader Today) 503-391-8423
- Salem Health West Valley Hospital 503-623-8301 • Victim Assistance Program-Polk Co. District Attorney's
 - Office 503-623-9268 x1444
- Willamette Valley Hospice 503-588-3600



hope and renewal for all of us, and the signs of new life are all around us. At our house, we are trying to find time to do house and yard projects, see some excellent local baseball games, and enjoy the best of college basketball during March Madness.

Daniel Russell traveled to

Moravian Falls, N.C., to

spend a week with longtime

friend David Hofshi and

family. The Hofshis are con-

verting a barn into a beauti-

ful home and are also work-

ing to find the best crops to grow on their organic farm.

While there, Daniel visited

the location of the 1753

Moravian settlement at

Bethabara. Incidentally, the

water that flows through

that region becomes the Pee

Dee River. Pedee Creek, and

Pedee itself, gets its name

from the Pee Dee River in

The students at the Pedee

Campus of the Luckiamute

Valley Charter School are

doing all they can to earn

money for their class trip

North Carolina.

The 11th Annual Community Health Fair is scheduled for April 6 in the gymnasium-cafeteria at Talmadge Middle School. Everyone is invited to visit the exhibits

Bob Miller, longtime MI Town resident, passed away earlier this month. Bob and his wife, Bonnie have given much of themselves to our community and have been wonderful friends and neighbors. Bob was a proud Navy veteran of World War II and Korea.

BEAULY	BEAST	
Friday - Thursday • I	March 24 - 3	0
LOGAN (Digital) (R)	(12:05 3:10)	6:15 9:20
CHIPS (Digital) (R)	(12:00 2:25 4:50)	7:15 9:40
POWER RANGERS (Digital) (PG13)	(1:00 3:50)	6:40 9:30
*BEAUTY & THE BEAST (Digital) (PG	(12:10 3:05)	6:00 9:00
*BEAUTY & THE BEAST (Digital) (PG	(12:40 3:35)	6:30 9:25
LIFE (Digital) (R)	(11:50 3:00)	6:10 9:25
LEGO BATMAN MOVIE (Digital) (PG)	(1:15)	
THE SHACK (Digital) (PG13)	(3:45)	6:45 9:45
KONG: SKULL ISLAND (Digital) (PG13	(1:40 4:25)	7:10 9:55
*Starred Attraction. No Passes.		
STOP BY EVERY WEEK FOR \$5 SUPER TUESDAY! ALL MOVIES. ALL DAY TUESDAY. ONLY \$5.		
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later this spring. They sold pies earlier, and they will be selling flower bulbs soon, as well as having a few car washes in the upcoming months.

On May 5, the kids will have a carnival fundraiser in the evening at the LVCS Bridgeport campus, which the whole community is invited to.

These Pedee middleschoolers have also been busy with other events. On

March 10, they hosted a grandparent's day party in the afternoon and had several grandparents come, play games with the kids, and see what they've been doing. Then on April 25-27, the sixth-graders will be heading to outdoor school at Tapawinga Camp near Falls City.

The Kings Valley students have been having a great time, too. March 10 was the hundredth day of school. The elementary classes celebrated many different ways, such as dressing like they were 100, wearing a shirt decorated with 100 different things (Band-aids, buttons, pom poms, googly eyes), finding different ways to count to 100 (\$1) using change, listing 100 different words to describe school, and doing 100 acts of kindness. Ten students and David Crowe did 10 different exercises. Lastly, there were 100 students in the preschool and elementary to celebrate 100's day!

Pedee Church will be having an all-church cleanup and mission fundraiser on April 1. In addition to cleaning up around the church, they will have a rummage sale (items needed), a bake sale, and a barbecue and potluck at noon. This will be a fun time to come together as a church and community to get things done and help raise money for Eric Schwanke's mission trip to Africa this May.

Sudoku solution

5 6 4 8 1 9 2

7 6 3 9 8

4

3

4 8

Coming

July

2017

14932875

9 2 8 5 1 7 4 3 6 376489521

8 9 1 2 5 3 6

9 1 3 5 6 7

8 4 7 2 9 1 6 5

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3

5 2

6

1

4

2

5 6 3 8 7

