Grow a pallet garden

Pallet gardens are excellent alternatives to large gardens for growing smaller sized vegetables, herbs and ornamental flowers. Garden blogs and garden websites are noting pallet gardens as an up-and-coming trend. We decided to build a pallet garden and found that a few modifications to the original designs really make this garden suitable to plant production. Schools with limited budgets and space can benefit from growing pallet gardens. Lumber costs can be expensive to build raised beds, and many schools simply do not have the space to plant raised beds let alone traditional gardens. Below are the LSU AgCenter directions and pictures to construct and plant a pallet garden.

Materials Needed: 1 pallet, a staple gun and staples, landscape fabric, soil and seedlings.

Step 1. Find a pallet. Don’t spend money on a new one; visit a local dumpster or speak with a grocery store manager. Pallets can often be found behind large stores, but first ask a manager as sometimes the delivery trucks recycle pallets saving stores money.

Step 2. If any of the pallet boards are loose, nail them securely. If old nails are sticking out remove them. We don’t want students tearing their clothes or worse injuring themselves on old nails.

Step 3. If the boards are really rough lightly sand to prevent splinters.

Step 4. Determine which side you want to be the front, then flip over. Starting on one side of the pallet, staple the landscape fabric (double layered) to the sides of the pallet, working from one side across the back and onto the other side. You may also want to start stapling at the top of the pallet pulling the fabric taut as you move across and down. Make sure the bottom of the pallet is also covered by a double layer of landscape fabric.

Step 5. Lay the pallet again on the ground front side up.

Step 6. Fill the pallet with soil. Occasionally tip the pallet to a 45 degree angle and shake soil to the bottom. Be careful not to let too much fall from the front slots.

Continued, pg 3
Mapping Louisiana School Gardens

Last fall 21 schools participated in a school garden mapping program. Participating schools received cabbage seeds that they planted and tracked from seed germination through harvest. The idea being that as the plant grew, the school’s icon on the map would change from a seed, to seedling, to cabbage head, and finally to a shovel to indicate harvest. Finally a school garden icon would emerge to denote the presence of the school even after harvest. Some plantings were more successful than others because of hungry deer and various other critters. Our tracking was more difficult than intended because of communication between us and teachers. However all participating schools sent us information to set up a profile of their school garden. Visit http://www.lsuagcenter.com/en/lawn_garden/master_gardener/school_gardens/ to see the map.

This year we would like to continue to challenge schools to grow gardens but are more interested in school location than tracking a planting. We’d like to map every school garden in Louisiana. But we need your help. To set up a school profile we will need your latitude and longitude coordinates. Please visit this website http://itouchmap.com/latlong.html and type in your address to receive these coordinates.

Send coordinates along with the following information to kkfontenot@agcenter.lsu.edu
◊ School Name and Address
◊ Participating teachers name
◊ Grade Levels that participate in the Garden (i.e. 4th, 6th, and 9th)
◊ The name of the LSU AgCenter agent you work with (if you work with one)
◊ A general list of your favorite plants to grow in the school garden
◊ 1-3 school garden photos

Having a Louisiana School Garden Map will be helpful in many ways. It will help the LSU AgCenter keep track of schools that have gardens so we can provide you with garden advice and extra resources when we get them. It will also give us an idea of schools that don’t have gardens so we can help those get a garden established. School teachers can use this garden to locate other schools close in proximity to share garden ideas, successes and failures. Teachers may also use this map to enhance student geography skills.

As a thank you for sharing your information with us, we’d like to mail you some seeds to help get your fall garden growing!

University of Illinois Extension interactive website

The University of Illinois Extension has a wonderful interactive website that will help your students learn details about plant parts, plant reproduction, plant growth and much more. Join Bud, Sprout and Detective LePlant by studying plant “cases” and solving mysteries. Each case lists goals that participating students should understand/ accomplish at the end of the case. The case also has online interactive activities and fun print out for students to write on. This interactive website is geared towards 4th and 5th grade students. It showcases a teacher’s guide as well. Check it out at http://urbanext.illinois.edu/gpe/index.cfm
Vegetables to plant in May
Direct seed snap, lima and butter beans (both bush and pole), collards, okra, southern peas, pumpkins (for early harvest), winter squash, sweet corn, watermelons
Transplant sweet potatoes

Vegetables to plant in June
Direct seed pumpkins (for early harvest) collards, okra and southern peas
Transplant sweet potatoes and tomatoes (for fall harvest)

Vegetables to plant in July
Start seeds for broccoli, bell pepper, Brussels sprouts, cabbage, and cauliflower
Direct seed collard greens, okra and watermelons (for Halloween harvest)
Plant tomato transplants (Heat set varieties) for fall harvest

Vegetables to plant in August
Direct seed snap, lima, and butter beans, beets, broccoli, Brussels sprouts, Chinese cabbage, cabbage, collard greens, cucumbers, lettuce, mustard greens, okra, shallots, and turnips.
Transplant cauliflower and tomatoes.

Richard C. Barlett
Environmental Education Award!

Attention High School Teachers! Are you an exceptional environmental education teacher or do you know someone who is? Nominate yourself or another outstanding teacher for the Richard C. Barlett Environmental Education Award! One 9th-12th grade teacher will win $5,000.00 and two runner ups will be awarded $750.00 each. Visit this web link http://www.neefusa.org/bartlettaward. On the bottom right hand side, click on ‘nominate a teacher’. You will need to set up a logon with the National Environmental Education Foundation to continue to nominate the teacher! This award may provide excellent funds for expanding your school garden and environmental science program! Hurry the deadline is June 8, 2012 and winners will be announced in August! Wouldn’t it be nice to see Louisiana represented!

Grow a Pallet Garden, contd, pg. 1

Step 7. Place plants in all slots between wood, placing the plants tightly together.

Step 8. Fill the remaining empty spaces with soil.

Step 9. Place something (we’ve used a low bench) like bricks or concrete pavers under the top potion of the pallet garden. Staple a single layer of landscape fabric to the top of the pallet. Cut small holes in the top to plant seedlings that will grow vertically in the pallet. Stapling landscape fabric to the top side of the pallet at this stage allows you to fill the pallet completely with soil, keep the soil from falling out of the pallet each time you water, and prevents weeds from growing around the plants in the top section of the pallet garden. Leave pallet in this position for approximately 2-3 weeks.

Step 10. Carefully and slowly water the pallet. If you water too quickly, the soil will rush out of the top of the pallet.

Step 11. After two to three weeks of initial growth, the roots will keep soil from falling out of the pallet garden when you flip it vertically. Flip the pallet to a standing position. Regularly water and use a liquid fertilizer.

Construct the pallet garden in the permanent growing location. Once filled with wet soil and plants, pallet garden are very heavy!

Can you think of other creative small garden containers? Share your ideas with us. We’d love to feature them in Veggie Bytes. Send a photo and instructions to Dr. Kathryn Fontenot at kkfontenot@agcenter.lsu.edu.
These green ladybugs are a serious problem. Although they resemble ladybugs they are not …their true common name is cucumber beetle and scientific name *Diabrotica undecimpunctata*. There is also a striped cucumber beetle, scientific name *Acalymma vittatum*.

Cucumber beetles feed on small plant seedlings on the stems, roots and flowers. Not only will they physically damage the plant resulting in poor fruit set from flower damage, but also transmit bacterial wilt disease. This disease can wipe out an entire field of plants. Typical symptoms of bacterial wilt are entire plants wilting in a day or over night and a white ooze emerging from cut stems placed in warm water. Cucumber beetles usually feed on cucurbits such as cucumbers, squash, melons, pumpkins and gourds. But they will also feed on plants such as beans, corn and potatoes.

In a school garden, how do we control pests such as cucumber beetles when we cannot use insecticides?

1. Rotate your crops. Avoid planting successive plantings of cucurbits (pumpkins, cucumber, squash, gourds, melons). Take all cucurbit debris, old leaves and dead plants out of the garden. Clean these plants as soon as the season is over. Remove from the garden and if you see the beetle, do NOT place in the compost. Throw plant material away.

2. Keep grounds around the garden mowed and weed free!

3. Place yellow sticky tape around the garden to trap adult cucumber beetles. Replace the sticky tape often as it will attract many beetles and garden debris.

If you find large populations of cucumber beetles, you may want to switch from direct seeding cucurbits to planting transplants in the school garden. Transplants are older when beetles arrive and more tolerant of some feeding damage than young seedlings.

**Extension Activity!**

Explore your garden for cucumber beetles… See any? We hope not. But if you do, start using remedies explained above. Have students research the following…

◊ Do cucumber beetles undergo complete or incomplete metamorphosis? Draw the lifecycle.
◊ Where do cucumber beetles lay their eggs?
◊ Where do cucumber beetles overwinter?
◊ List and describe other control methods for cucumber beetles in commercial vegetable fields. If you were a farmer, what would you do to protect your cucumber plants from the cucumber beetle?

[Picture found from http://cmf-mm.prod-wcm.meistermedia.com/32264/Cucumber-Beetle.jpg?width=400&height=400 website.]
Ms. Rachel D. Bourgeois and Mr. Ted Daigle are growing a garden with students at St Pius Elementary in Lafayette, Louisiana. They, like many of us, have issues that arise in the garden. Check out their photos of yellow plants.

As the plants emerged, they never turned a nice dark green color. Mr. Gerald Roberts, an LSU AgCenter county agent, helped the teacher and students take a soil sample. He suspected several things could be causing the yellow plants.

**Soil pH problems?** If the soil pH is below 6 or above 7, most vegetable crops will not have access to nutrients in the soil. They are simply unavailable to the plant as they attach to the soil and will not go into water solution and be taken up by the roots.

**Soil mixture contained too much bark?** Pine bark can significantly lower soil pH causing yellow plants, but bark in general also takes a long time to decompose. Because vegetables have relatively short life spans, they need quick-release fertilizers. As bark decomposes, it ties up soil nutrient again making them unavailable to the plants. Try and use soil mixes that are aged or very decomposed when building raised beds.

**Overwatering?** Overwatering can leach nutrients from the soil, especially in raised beds. Most vegetable crops need 1 inch of water per week. Place a rain gauge in your garden to determine the amount of water from rain and overhead irrigation.

**The answer?** Soil sample results indicated low levels of nitrogen. County agent Gerald Roberts and Soil Specialist Dr. Jay Stevens are attributing this to the decomposing pine bark. They also noted an unusually high amount of sulphur and low pH (5.7 in one bed 5.3 in the other). Their recommendation to the school was to add nitrogen-based fertilizers like calcium nitrate and/or ammonium nitrate to the crops to see if they green up. After this season’s vegetables are harvested, the school should add lime following recommendations on the soil sample. The LSU AgCenter recommends having your soil tested once every three years, especially in smaller gardens where crops are often grown year after year.

**Do you have problems in your garden?** The LSU AgCenter is here to help. Submit questions to Dr. Kathryn Fontenot at kfontenot@agcenter.lsu.edu or contact your local county agent! To determine who your local county agent is, visit the website http://www.lsuagcenter.com/en/our_offices/parishes/. Click on the name of the parish you live in. A phone number for each parish office will be at the top of the page. You can also click on “contact us” to get a list of the names of the agents that work in your home parish.
Recipe

Just before school ends you should be harvesting potatoes if you haven’t already. A healthy alternative to French fries are baked French fries. No potato lover can resist this easy to make snack.

Ingredients and Materials:
Light vegetable cooking oil spray
Freshly dug potatoes
Cajun seasoning of your choice
Ketchup

Pre-heat oven to 400F. Heavily spray a baking sheet with the light vegetable cooking oil spray. Cut potatoes into thin slices less than ¼ inch thick. Place on baking sheet. Once the sheet is completely covered with thin potato slices, spray the tops of the potato slices with the light vegetable cooking oil spray. Lightly sprinkle with seasoning of your choice. Bake for 40 minutes or until light brown.

Serve warm with ketchup and ENJOY!

This recipe has been cherished by me for years and is a modified recipe from Rosie Daley’s (Oprah Winfrey’s personal chef) cookbook.

Nothing like fresh potatoes for a growing horticulturist!