

Container Gardening Presentation Outline

This document is meant to provide a general overview of the Container Gardening presentation on March 7, 2012. More content may have been covered during the session. However, I hope this document is useful as a reference for those who were unable to attend the session.

Welcome, slide 1

Hello, my name is John Obrycki, and I am a graduate student in the Natural Resources and Environmental Management program. I am excited to speak with you today about Container Gardening. This is a really neat subject and I hope I can share with you some helpful information. These materials are available to you online as well, so please do not worry about trying to remember a specific website address or specific container requirements. If you have any questions, we should have a few minutes at the end of the presentation. And if I can't answer your question, I will write it down and get back to you.

As the session description said, "you don't need a plot of land to grow fresh vegetables and herbs. Come learn what vegetables and herbs lend themselves to container gardening and how you can easily (and inexpensively) spice up your plate."

So this is what we're doing today, we're all interested in container gardening and we want to learn more, so let's jump right in.

Five components, slide 2

There are five components to container gardening. There are the four components of regular gardening: plant, soil, water, and sun. Let's add the fifth component: the container. In some sources you'll see a sixth component, that of fertilizers and nutrients. This is true and we'll discuss adding nutrients in a little bit.

When you're using the container, you're creating a mini-garden, so your plant, water, and soil, now exist in a compact space. You need to pay more attention to the container's size, plant requirements, watering, and proper aeration.

Don't forget YOU. You're a really important component of the container garden!

The soil, slide 3

First, let's consider the soil. You may purchase a ready-made soil mix, or you can create a soil mix by purchasing the components. In this image you see two types of soil mixes, the soilless mix and a garden soil mix. With your soil, you want to think about how well water will move through it. Keep in mind aeration and drainage.

Here is a short video that discusses soil mixes from a great website at the University of Illinois.

<http://urbanext.illinois.edu/containergardening/videoplayer.cfm?video=soilmix2>

(~3 minutes)

Recipes for soil success, slide 4

As we heard in the video, you have options when it comes to the soil. Here are two recipes for making a container garden soil. You can see the difference between the soilless mix and the growing media that contains soil. One of the advantages of having soil in your mix is that the soil should help retain nutrients better than the soilless mix.

These two recipes come from a Purdue Extension publication. Notice how the soilless mix requires more fertilizer to be added. Since it might be hard to think about a bushel of this ingredient and a bushel of that ingredient, I've simplified the recipe to ratios. In the first recipe, the ratios are about 1 cup to 1 cup to 1 cup to ½ teaspoon. There is a very small amount of fertilizer added. In the second recipe, the ratios are slightly different. You don't see soil added, but you do see peat moss and vermiculite. Peat moss is a type of decayed moss. Vermiculite is a mineral that can shrink and swell in the presence of water.

(I found the ratios by using a helpful table from this website,
<http://edis.ifas.ufl.edu/vh032>

1 bushel is 8 gallons, 8 gallons is 32 quarts, 32 quarts is 64 pints, 64 pints is 128 cups)

Recipes for soil success, slide 5

You may find many recipes for soil mixes. Here is a simpler one that calls for equal parts of sand, garden soil, and peat moss. The sand is not supposed to be the kind of sand that is in a sandbox, this sand needs to be a coarser kind.

With all these mixes you are seeing that regular “out-of-the-yard” soil won't do. When you're mixing these soil media together you're creating a kind of soil that works better for the confines of a container. This soil media is lighter and drains more quickly than soil by itself.

The Container, slide 6

You can container garden in any container you want, provided there is some way for water to filter out the bottom of the container. Planting can be done in pots, and here are a few examples of the amount of soil mix needed for a given pot diameter. You may find recommended guidelines like this in several locations (including Container Vegetable Gardening <http://www.extension.iastate.edu/Publications/PM870B.pdf>). I approximated the height of the containers to give you an idea about the size overall. You do want to make sure the container is tall enough to contain plant roots.

Surface Area Guidance, slide 7

Another issue you will want to consider when you're planting is how much surface area you have in your container. This is important if you're trying to put many different plants within one container. I used a round pot as an example here, though you may be

growing a garden in any manner of a container. A pot that has a 20 inch diameter has nearly 2 square feet of growing surface.

Possible materials, slide 8

You can select anything you want for a container. Common materials include clay, plastic, concrete, or anything else. Clay tends to be heavier, but will allow water to seep through it. Plastic is lighter, but allows less water movement.

Here is a short video that describes containers.
<http://urbanext.illinois.edu/containergardening/videoplayer.cfm?video=choosingcontainers>
(about 3 minutes)

You want to consider how your container will be affected by heat, how well it will drain water, and if the container is the proper size for what you want to grow.

You can grow anything, slide 9

There is no limit to what you can grow. All you need is the right kind of container. Here are some commonly recommended vegetables and herbs that you might want to try. You may find varieties that have been specifically bred, sometimes called dwarf or miniature varieties. These can work in container gardens too.

Plant Containers, slide 10 and 11

You'll find all kinds of recommendations about the proper size of container needed to grow specific crops. This slide and the next slide present some of that information. For example, one source may say herbs need a pot diameter of a certain size while another publication may say something else. I would consider these to be recommended guidelines. If you can't find a container of the exact specifications, it won't ruin your garden. Many of the references at the end of this presentation have these kinds of guidelines.

How close, slide 12

Another issue to consider is how many different plants you can fit within one container. If you put plants too close together, the plant growth might be stunted and you might encounter other problems, like disease. One way to be efficient with your plantings is to add the recommended planting distance between two different plants and divide this number by two. For example, if plant 1 requires 4 inches between each plant, and plant 2 requires 6 inches between each plant, you can take $4+6 = 10$, divide by 2, and you can place plant 1 and plant 2 five inches apart.

Planting examples, slide 13

Remember when we talked about surface area? Here are some neat images that demonstrate just how many vegetables you can fit within one 16" diameter pot.

Water, slide 14

How frequently should you water a container garden? You want to make sure the soil is damp, but not absolutely soaked. One way to test this is to place your finger into the soil. If the soil feels damp, then you should be fine. You can use a popsicle stick too. If the soil sticks, watering might not be necessary. When watering, if you water all at once you might flush out nutrients that are in the soil media, and you might stunt plant growth. One possible approach is to water more frequently, but do not add as much water each time.

Fertilizers, slide 15

When we discussed mixing a soil media, one of the recipes called for the equivalent of one-half teaspoon to 3 cups of soil media. A little fertilizer can make an impact. Just as some gardeners tend to overwater, some gardeners tend to overfertilize. One reference recommended adding half the required fertilizer twice as often (North Carolina State Extension, <http://www.ces.ncsu.edu/depts/hort/hil/hil-8105.html>). One of the risks of adding too much fertilizer is that you can cause fertilizer burn, as you see in the photo. Fertilizer, no matter what form you use, is helpful for adding necessary nutrients to your soil, including nitrogen, phosphorus, and potassium. With a soilless mix, you may need to use more fertilizer than if your mix contained soil.

Sun, slide 16

Proper placement of your container garden is important for making sure your plants grow. Generally, try and place your container garden in a location that receives between 4 and 6 hours of direct sunlight each day. Depending on the plant, this may be higher or lower.

Cost estimate for container garden, slide 17

We've covered a lot of different aspects of container gardening. By looking at a few different stores, I made a very rough estimate for the price of starting to container garden. You will likely find different prices than these, and I do not include these as a kind of guarantee. Now the tricky part here is that soils and mixes can be sold by the pound, and you are interested in the volume of the container for gardening. The volume of each of these items depends upon how dense it is. The 10 pound bag of potting mix could have a volume of approximately 2.5 gallons. Roughly, one bag would fill a 10" pot. Larger containers for gardening can get heavy when you start adding all the pieces. Densely packed soil media is not going to do well. When adding the soil media, you do not need to pack it into the container. Instead, scoop it in reasonably.

Conclusion, slide 18

This has been a brief introduction to container gardening. Remember to contain only your disappointments when you are gardening. A plant or a container might not work, but there are always more methods to try.

Questions, slide 19

If you have any questions, I am happy to answer them. If I do not know the answer, I will look it up and get back to you.

References and helpful sources, slide 20

This slide contains a lot of useful sources about container gardening. Many of them are Extension publications. They are available as pdfs and they are great. If you are interested in a starting point, I recommend the Successful Container Gardening. This site has a good introduction to the subject and has many videos.

Photo credits, slide 21

If you are interested in where I found the images, here is a list of the photo credits. In some instances I included both the web address of the image and the page where the image was found. Sometimes there were helpful discussions about container gardening within the page too.