Herbaceous Plants

Slide 1
Hi – I’m Mary Robson. This unit is part of the basics of gardening, using herbaceous perennials in the garden and a little bit about success with containers. That is a huge subject, which many of you have a lot of knowledge about but I wanted to bring it in a little bit. The other thing that will probably concern you is - this text is intended to supplement your written text but it doesn’t follow it exactly. Some of you are driven crazy by that. I apologize, but that is the way things are. This is intended to give you visuals that will actually support what you get in your written material. I hope that you have fun with this; I certainly had fun putting it together for you.

Slide 2
This is my own garden in Port Townsend, Washington. In mid-March, I am zone 7B-8A; we have had cold winters and less cold winters, but generally I am 7B. And I always use a lot of spring bulbs in containers, partly to help the tulips evade the deer and partly because I really like the effect of being able to mass the containers.

Slide 3
This is the same garden five months later, in September, to give you an idea of how much variety herbaceous perennials can bring to your garden.

Slide 4
Study your climate factors; it is important to know your own zone. And you may, by the time you look at this, there may be a new USDA map of cold and heat zones - still in progress when I wrote this.

Slide 5
Many herbaceous perennials grow well from zones 4-9 or 3-9. So as you study plants, you will find the one just right for your zone.

Slide 6
Of all the factors influencing herbaceous perennial growing, the most important is water. This is true for all of us. Keep an eye on how you plan water in the garden.

Slide 7
The demand for water is the greatest in all over Washington when the rainfall is the smallest. This is also true for eastern Washington.
Slide 8
No matter what your zone, water management is vital. Both of these plants would need some extra summer water.

Slide 9
Here is a beautiful garden that would not survive without water in the summer.

Slide 10
This is a very obvious review question.

Slide 11
So, we are going to go into the various factors in keeping herbaceous plants healthy, starting with cold hardiness. It helps if you keep some temperature records and keep your eye on your own location.

Slide 12
All of these factors work together to determine whether you are going to get a plant through the winter or not. This is a lot of words but take it slowly.

Slide 13
Whether we call a plant annual or perennial may depend on the zone. This is *Phormium tenax*, which can live over in western Washington, but if you get it over to eastern Washington it will die on you.

Slide 14
And here is a *Phormium tenax* that died in western Washington actually, in a very bad cold snap. This did not recover with warm weather. It was mush.

Slide 15
Survey your own microclimate - all the factors that come together to affect how plants grow. This is true for shrubs and trees as well as herbaceous perennials.

Slide 16
Even if you think that you have a plant in the right place, extreme conditions can kill it. This trailing rosemary died in my garden in that 11-degree temperature and interestingly, the upright rosemary survived.

Slide 17
If you are selecting annuals and perennials, consider shade. One of the microclimate
factors is shade. This is a north and very shady corner.

**Slide 18**

You will have your own answers to how your garden’s microclimate affects your plants.

**Slide 19**

We are now going to look at all of the different personal reasons why people might want to select different herbaceous plants. We all don’t want the same kind of garden. And these are some of the factors that might go in. You will add some of your own perhaps; gardening for children, gardening that is successful to some people who need support from a wheelchair etc…

**Slide 20**

This is a cutting garden in zone 5 with beautiful peonies. This was June. You might want to add some annuals or other perennial color to get you a longer season of interest. This is only about a two-week-long garden.

**Slide 21**

Many herbaceous perennials make good ground covers. This particular geranium takes dry soil, sun or shade. It is a useful plant in all our zones.

**Slide 22**

This plant combination does two things - it is colorful and it also attracts hummingbirds, who like the columbine.

**Slide 23**

You may want to add for nostalgic reasons a few plants that carry special meaning for you. I grew up with these plants in the Ohio woods and I can’t imagine leaving them out of my garden, even though they are hard to grow where I am.

**Slide 24**

Vegetable and fruit gardens attract nearly all growers now. This is the big direction gardens are heading in.

**Slide 25**

Saving water- another reason to choose plants would be for their water use. These choices illustrated here manage with very low water in summer. Even the *Rosa rugosa*, which is an extremely adaptable plant.
Slide 26

All of these ideas will help you with your garden management. So we are looking at space, grouping, water, seasonal interest.

Slide 27

And this is how we are not doing our gardens now. Gardens like this were grown years and years ago. Herbaceous perennial borders, wide border with a lawn - we don’t do this now.

Slide 28

It is traditional, but it has only two seasons of interest.

Slide 29

What we are doing now in gardens more and more is combining shrubs and flowers to keep a garden looking fresh over a long season. The pines and the ceanothus and the lavender will all fill in and even be attractive when they are out of bloom.

Slide 30

This is another place where the shrubs have been combined. There is a small conifer, a *Phormium* which is going to get quite big, and when these plants grow up there will be a variety of interest.

Slide 31

You can reduce your lawn size if you want a flower and vegetable garden, but you may not want to lose the lawn. There are some really wonderful things about a lawn.

Slide 32

Break Time

Slide 33

We are going to look specifically now at types of plants, starting with spring-blooming bulbs.

Slide 34

Hardy spring bulbs grow very well in zones 4-6. And in western Washington, they are an agricultural crop. They are grown in masses for sale and for the beautiful display they give people in the spring.
Slide 35

How are spring bulbs affected by weather? Most of them are very adaptable to cold. These are narcissus.

Slide 36

Most spring blooming bulbs do not handle high heat well. This is a Seattle heat spell, it was 88 degrees, and the narcissus collapsed and didn’t get back up again. This factor may influence the life of these plants east of the mountains, where it can get hot early.

Slide 37

Snowdrops are plants that grow much better if you transplant them right after they bloom. When you plant them in the fall from little corms, they grow more slowly.

Slide 38

Crocuses are small in size but large in color. They are absolutely wonderful.

Slide 39

They get eaten by squirrels and voles and gophers. This is my cat Merlin, who is no good at squirrel control as you can by the squirrel behind him.

Slide 40

If you want to, bring some of your small flowers inside for small arrangements.

Slide 41

Narcissus are almost the most versatile of all the spring bulbs. Look at all of these virtues.

Slide 42

These narcissuses grew year after year with very little care. This was in a mountain town in Montana.

Slide 43

Cheerful, bright colors come with narcissus.

Slide 44

And also soft colors. This is one that I like particularly, *Trumpet narcissus* ‘Pineapple Prince’. Very soft primrose, not shrieky in color at all.
Slide 45
Try this method of planting. You can put your spring bulbs into pots and the most important thing about it is fill the pot three-quarters of soil, then put the bulbs in, then cover them up. You want them to have as much root room as possible.

Slide 46
If you are choosing narcissus, the jonquils, *Narcissus jonquilla*, are among the most fragrant. Some of them have just a beautiful perfume.

Slide 47
You will find that some of your narcissus will increase over the years. These are the bulbs of Narcissus ‘Ice Follies’. I started with twelve in a barrel and after 3 years, I had thirty-two strong bulbs.

Slide 48
Older plantings of narcissus can go on. This is Narcissus ‘Salome’, a pink one, in front of a shop where nobody had paid any attention to it for years.

Slide 49
If you love blue, as I certainly do in the spring, look at the grape hyacinth. This is one that starts dark and lightens towards the top, *Muscari latifolium*.

Slide 50
Some people get troubled by grape hyacinths, which can take over. This one is *Muscari neglectum* growing between the wall and the sidewalk where there is very little soil and it has just happily moved in. This species is particularly clambering; it is particularly cumbersome to get rid of. The other species are less so.

Slide 51
This is a beautiful springtime combination, both the Narcissus ‘Tete a Tete’ and the Muscari are only about six inches tall, so put this somewhere where you want a nice short combination.

Slide 52
Review Questions

Slide 53
Tulips, which many of us absolutely love, add a lot to the garden. They are not as long-lived as narcissus are, and this particular picture shows you how different the same
particular perennial, *Euphorbium martinii* can look with two different colors of tulips.

**Slide 54**

Tulips may get very tall. This one is called ‘Blushing Lady’ and my friend Elly is holding it in her hand. So it was actually nearly forty inches tall.

**Slide 55**

The big question about tulips is “Where do they go?” You will find with the bigger tulips that the first year you have a ton of them, the second year not so many and the fourth year they may be gone. What happens is that the big bulbs tend to split.

**Slide 56**

And here is a picture of what happens. They split into small ones. If you look at the picture to your left, you will see that each of the big bulbs, after one winter, has split into many. That was about five big bulbs and there were thirteen. So if I planted all of those I would get only one leaf out of each one. So, what it means is that it will take you sometimes three to five years with the smaller tulip bulbs to get back to a blooming size.

**Slide 57**

The ones that last are the species tulips. And this is *Tulip bakeri*. They are four to six inches tall and they will form a new bulb below the old one and they will bloom year after year. They are marvelous, even though short.

**Slide 58**

This is a good picture of one of the fine tulip species, *Tulip tarda* ‘The Waterlily’.

**Slide 59**

Tulips also fail to thrive if they get summer shade or if you water them in the summer – don’t do that. And they get a lot of disease problems. This is tulip botrytis, which you can see there is a normal one on the right and all of the rest of them are affected by disease. If you get this, you have to remove the bulbs and plant new bulbs in fresh soil - it persists in the ground.

**Slide 60**

Store your fall planted bulbs in paper. And this is an example of two things that can happen with long storage: blue mold on your right; on the left the bulbs in the middle were planted four months later than they should have been and they come up very short and bloom badly.
You wonder if you can put tulips in the shade. You can if you only want them to bloom one year. These are tulips grown essentially as annuals.

A few of the larger tulips will come back year after year. The ones called “single lates” and “Darwin hybrids”. Here is one in its second year, just as large in the second year as it was in the first year.

Tulips also do well in pots: ‘Blushing Lady’ with narcissus.

Finally, in May and June we are still looking at the bulbs that were planted in the fall, blooming into the spring and summer. Allium, in the onion family, is terrific in part because all critters from squirrels to deer don’t bother them.

They return and multiply well if your soil is well drained. This is my old garden in Seattle, where I had planted five and ended up with about twenty after some time.

Allium - there are a lot of different kinds. This is one that blooms eighteen inches across. Check your catalogs and experiment with allium, they are also extremely waterwise.

I visited a garden where the gardener had painted her Allium schubertii different colors. I have now seen these in catalogs, you can buy metal ones but it is more fun to grow them.

Okay, all of the different considerations for choosing plants. Not just microclimate but how do you want to manage your garden.

It helps to know the genus and the species. And this is particularly true with perennials. Here are two pictures of iris. The one on the left, Iris germanica, wants dry soil that is well drained. The one on the right, Iris ensata ‘Variegata’ grows on the edges of ponds.
They are both iris but they are different species.

**Slide 70**

This is a July border on Bainbridge Island. All of these are moisture-loving plants except the pine and the *Phormium*. She has primroses, ferns, dahlias. This is a case of grouping plants for good effect.

**Slide 71**

This is a low water use gathering. Lavender, allium, catmint - all of these can survive most of the summer in Western Washington without extra water.

**Slide 72**

We get into fall for low water use - Sedum and Echinops. This is sometimes called globe thistle and it is a very good dry plant.

**Slide 73**

You will also find that you might want to look at combinations when choosing natives and exotics. This is *Luzula nivea*, a native grass, with an exotic tulip.

**Slide 74**

Sometimes you will notice people describing combinations that won’t work. These two plants are beautiful together as to color but require opposite growing conditions. The yarrow should be dry, the cannas should be moist. I don’t know how they lasted long enough to get the picture taken.

**Slide 75**

Another trend in gardens is attracting birds. And one of the things that you may want to consider is all of the factors that go into this, especially variety of plants and no insecticides.

**Slide 76**

I garden to attract hummingbirds. These are a number of plants that do well for me in zone 8. I especially like the hardy fuchsias and the Mahonia.

**Slide 77**

This hummingbird at heuchera, the old-fashioned coral bells.

**Slide 78**

And another hummingbird photo. They require gnats, aphids, and spiders for protein.
So it is not just sugar for hummingbirds, this is why you do not want to use insecticides in your garden.

**Slide 79**

**Review Question**

**Slide 80**

Consider the eventual size of the plant. This is *Sambucus nigra* 'Black Lace'. I put it in a pot and it was two feet tall, it looked great. I took it out of the pot, knowing that it will eventually reach fifteen feet. Make a choice before you decide to put a perennial in a pot or take it out. Consider the final size.

**Slide 81**

**Break Time**

**Slide 82**

Herbaceous peonies: we going to look at a few of the characteristics of some of these wonderful plants for garden beauty in June and late May.

**Slide 83**

Here are the major factors in growing peonies. Take some time and look this over.

**Slide 84**

Tree peonies: allow the woody stems to fill in. If one of your clients comes in says to you that their tree peony did not bloom, ask them if they pruned it. Because you need to leave the tree peonies to have wood and branches just like a tree.

**Slide 85**

Here is a close-up of a tree peony.

**Slide 86**

Herbaceous peonies, unlike the tree types, die to the ground during the winter. Here is one just coming up in the spring.

**Slide 87**

The one disease that you will see that is really hard on peonies is called peony botrytis. It turns the buds to little globs of black. They will never open and you need to trim off all of the damage and use a fungicide that is registered for peonies.
Slide 88
When you do have peonies doing well, here is a combination of *Peony* ‘Athena’ and allium and a little catmint. This is my idea of a perfect June garden.

Slide 89
Some peonies are grown simply for the color of their seeds. This picture was taken in Portland in late September. The seeds on this plant are more interesting than the flowers.

Slide 90
Sometimes people will actually grow peonies from seed. This is Far Reaches Farm in Port Townsend, where they are harvesting and planting peony seeds.

Slide 91
Fall clean-up: we are talking about management. We’ve been working our way through the year. In the coldest zones, most people clean up in the fall and mulch. In zones 7-8 you can leave the whole thing until the spring if you want to. You have a little more flexibility.

Slide 92
Spring maintenance: after you have been through winter, get the dead foliage out. Move plants and fertilize gently. I usually only fertilize it once in the spring.

Slide 93
This is my garden in very early spring before cleanup.

Slide 94
This is it tidied, before the mulch has gone on. At this point it is very easy to step on emerging plants.

Slide 95
This is the biomass created in the previous year. Over the winter, it just sat there and now it is on the way to the compost.

Slide 96
The worst enemy of all herbaceous perennials and annuals and vegetables is the snail and the slug.
Slide 97

Most of these are related to slugs that have been brought in from Europe. This is one on a *Kniphofia*. I grew this myself so you wouldn't have to.

Slide 98

Slug management – use several different techniques. That is extremely important. Slugs are especially bad in spring when our plants are just emerging. Check your Hortsense for current recommendations.

Slide 99

Be patient. Sometimes people say “oh they don’t want to crawl across anything that is prickly.” This is a slug that is climbing on a Canada thistle. I wish that he were eating the Canada thistle.

Slide 100

They are really damaging to spring narcissus and all spring bulbs. And you notice that they will eat the flowers before they eat the leaves. You need to really pay attention in the spring to slug control.

Slide 101

Here is one that crawled into the bird bath and was under water for five minutes. I thought that he had died.

Slide 102

But he hadn’t. That is the same slug escaping, unfortunately. They are extremely durable and they will borrow into the soil to protect themselves from cold and heat.

Slide 103

They recycle plant parts, yes, but they don’t wait for the plant to die.

Slide 104

Several of the slugs that I have met have chewed the labels off my slug bait. And you know from your pesticide study that if you can’t read the label, you should not be using it.

Slide 105

Finally, there are some classic herbaceous plants. This is delphinium. And while we are talking about slugs - slugs will dive into the center of the delphinium and eat it before it even emerges in the spring. This takes a lot of management.
Slide 106
Delphiniums also have hollow stems, like dahlias. You do not grow them well if you have very strong winds. But it is hard to resist the colors.

Slide 107
Hardy geraniums as summer ground cover. Most of the hardy geraniums do extremely well all through western Washington.

Slide 108
What is interesting to me here is that the geranium is more interesting when the color is set off by this Japanese fern. The Japanese fern needs constantly moist soil. It is an absolutely beautiful Japanese painted fern; you can’t grow them dry.

Slide 109
Shady woodland gardens generally require water. This is a begonia that is hardy in western Washington most of the time.

Slide 110
Other good combinations – an echinacea with a barberry. If you are designing with shrubs and perennials you will have more winter interest. But be sure you get choices that have similar water needs.

Slide 111
One of my favorites for summer color is lilies. These are true bulbs. They are never fully dormant. You have to handle them carefully because it is easy to bruise them.

Slide 112
Here is a lily. You will notice that it has no covering like a tulip or a narcissus. Many of them form roots above the bulb and that is why you need to plant them in well-drained soil. And you need to get them deep enough, six to eight inches down.

Slide 113
The Asiatic types look great in containers and bloom in June. They are usually scentless, although some of the hybridizers are changing that.

Slide 114
This is the Oriental lily ‘Stargazer’, so-called because it looks up at the sky. These were developed for use in flower arrangements but they are beautiful in gardens.
Slide 115

They can get tall, my friend Suki is a normal-sized human; this lily got to eight feet and kept going right out of the picture.

Slide 116

Tips for growing lilies. They really need good well-prepared soil, good air circulation, and they can get all kinds of problems from viruses and botrytis if they do not have good air circulation. You can plant in spring or fall for all hardiness zones.

Slide 117

This is lily streak virus, which will stunt the plants - just simply makes them grow too short and you have to discard them.

Slide 118

This is the oddest thing that lilies do and other plants do it, also. You will see it on forsythia; you will see it on willow. This is fascination. No one is quite sure what causes it but the plant becomes two-dimensional in the stem instead of three-dimensional. They will usually recover the following year.

Slide 119

Another fine plant for color in the summer garden – daylilies. It is important to remember that these are not truly lilies. They are *Hemerocallis*. And people you talk to are going to get all mixed up and think that these are true lilies. They have rope-like roots instead of bulbs. Daylilies need regular water, and unfortunately it’s also true for regular lilies. Deer and slugs love these plants. You can see when you look at them how tasty they must be.

Slide 120

Summer blooming bulbs need warm soil and should be planted in the spring. Dahlias, sometimes, are definitely not planted until after frost. If it is a tropical plant you need to wait until the soil is warm to plant it.

Slide 121

Dahlias give us great color for late in the season. Usually they go into the ground in May. In western Washington, they can stay in the ground; in eastern Washington they are usually dug and stored after frost.

Slide 122

Break Time
Slide 123

Another great plant for fall color, Gallardia “Tizzy.” There are many gallardias, this one in my garden bloomed until Thanksgiving.

Slide 124

Annual and perennial violas may be sold in fall and spring. We think of these as pansies although this is a picture of Viola cornuta, which is a hardy perennial violet. You will see both pansies, which are essentially annual, or perennial violas.

Slide 125

If you are saving water, many of us absolutely love succulents. They look well in pots. Some of them, like the Echeveria in this picture, cannot take winter temperatures even in western Washington. They need shelter.

Slide 126

One of the things about new perennials is that people are constantly working to make plants advanced. One of the plants that has been worked on a great deal is the heuchera.

Slide 127

This is Terra Nova nursery in Oregon. Each of those blocks is a different type of heuchera. So you will see as you visit nurseries constant changes in the plants that are available to you.

Slide 128

This is a close-up of Heuchera ‘Obsidian’, one of the new cherished colors of the old coral bells.

Slide 129

I like the old green ones in particular because the old fashioned ones, this is Heuchera ‘Rosada’, have flowers that hummingbirds like. Many of the newer versions are not as attractive to hummingbirds.

Slide 130

Another garden trend - you might say “I want nothing but plants” - people are using paint to accent gardens to bring more color into the summer herbaceous garden.

Slide 131

Here is a friend who planted her container to go with her bench or the other way
around. I don’t know which, but the effect is beautiful.

Slide 132

Container gardening, people are putting plants in everything. Very easy to do. This is sempervirens and sedum in a variety of clothing objects.

Slide 133

The biggest problem for herbaceous perennials in containers is that the roots fill up the pot and by fall they may need to be transplanted. Check your perennials at the end of one year in a container and three years for shrubs and trees.

Slide 134

Here is a hosta being grown in an old metal container. Very sculptural, very beautiful. And it gives you an example of what you can do with herbaceous perennials in pots.

Slide 135

People are also putting their houseplants outside for décor in warm weather.

Slide 136

Many of the exotics grown in warm greenhouses can also be used as summer color outside. This begonia is a relatively new one. It is extremely tender to temperature and don’t let it get dry or cold.

Slide 137

You will also find that people are letting all of their greenhouse plants out. This is a gathering of coleus, begonias, geraniums and tender ferns. You could move this whole thing outside onto a porch in the summer time.

Slide 138

Containers - from my point of view, how good your container is depends on how well it drains. Don’t put any junk in the bottom of the container. It is hard to convince people about this one. Wet the soils thoroughly before you plant, and I never put saucers under because it tends to make the roots rot.

Slide 139

Here is a beautiful example of a nicely-planted window box outside of a restaurant. Nice touch against that white wall.
Slide 140

Annual flowers, which you will find yourself growing, need regular water and fertilizer. More fertilizer than you would use with herbaceous plants. I generally fertilize the herbaceous once in the spring. With the annual flowers, they need to be fertilized every two to three weeks throughout the summer.

Slide 141

Okay, so here is your diagnostic puzzle of the day. Here is a cosmos on your right grown from seed, grown from the same seed as the one on your left. And it grew ten feet tall. The answer is too much nitrogen. Do not over fertilize with nitrogen, whatever you are growing. In this case, the cosmos never bloomed.

Slide 142

The most common disease problem for all of your herbaceous perennials and annuals is going to be powdery mildew. Powdery mildew has a big range of plant hosts and in this case the columbine in one pot is getting the powdery mildew but is not affecting the fuchsia. It is a type that the fuchsia doesn’t get. This is something that you will learn from experience as you grow plants. And in general, with powdery mildew, I just cut off the effected leaves.

Slide 143

Other good plants for container growth. This is ‘Ivory Prince’ hellebore in a pot, sheltered from cold but looking really beautiful when it bloomed in January.

Slide 144

And what I really want to emphasize is that we are growing our gardens to support all of the creatures that are around us. This is a Pacific tree frog.

Slide 145

Spiders, which are great hunters of things you don’t want, like aphids.

Slide 146

All manner of butterflies and moths. The more adapted your garden is and the fewer insecticides you use, or no insecticides, the more likely you are to have all of these creatures living well in your gardens.

Slide 147

So for an end, let’s look at one garden in four seasons. This is my garden, December 21st - it is in Port Townsend and there is a little more snow than usual.
Slide 148
The same garden coming out of winter dormancy. You will see a lot of plant damage. This is probably as bad as the garden ever looks.

Slide 149
This is the same area in late March, when all of the bulbs are in.

Slide 150
And this is the same area in July, July 20, when all of the lilies bloom. Again, what you are doing is allowing change to bring joy to you with your perennial garden.

Slide 151
And the end has to come. It has. Enjoy your gardening and enjoy all you can learn from each other, from your neighbors, from all of our wonderful helpers at nurseries.