Announcer: The Missouri State Journal, a weekly program keeping you in touch with Missouri State University.

Emily Yeap: Spring has made its return and for many, that means gardening will be in full swing. How do you get your garden ready? What types of things should you plant? How do you ensure a beautiful garden? I'm Emily Yeap.

Joining me today to answer these questions and more is Dr. Clydette Alsup-Egbers, associate professor in the Department of Environmental Plant Science and Natural Resources at Missouri State University. She says there are several must-do tasks to prepare your garden for a successful season.

Alsup-Egbers: First, if you haven't had a soil test done in several years, you should have it done now. This will let you know whether your soil has the proper pH and whether you need to add fertilizer before planting. It will also tell you which nutrients which plants require to grow successfully are needed and how much of each are needed.

Second, you should make a plan. What do you want to grow? How many plants of each kind? How much space does each one require? Do you have a site where these can grow well? Plants need to be matched to the environment where they grow.

If you grow vegetables, how long will it take before you can start to harvest? I always recommend when you are planning to grow vegetables, think about how much of any one food such as lettuce, you and your family can consume before it goes bad. You probably don't need 10 heads of lettuce ready all at once. It's also a good idea to make a sketch of what you plan to grow and where.

Next would be order your plants or seeds, or visit a garden center to discover what's available.

Next, I would say clean out your garden or your landscape beds. Remove the leaves, twigs, weeds. You can put most of those in the compost pile if you have one or want to start one, or perhaps shred them with the lawnmower to later use as mulch around your plants. Cut back dead growth of anything from last year.

Then, last, I'd say make repairs like damaged or leaning fences or raised beds before you plant because it's much easier than it will be later.

Emily Yeap: How do you decide what types of items to plant?

Alsup-Egbers: There's an old book, it's still a good book, called “The Right Plant, Right Place.” Figure out what kind of conditions your planting site has and match plants to those. Decide whether you want food, or flowers, or fruit, and do some research to find out which grow best in our area. The MU Extension Service is a good resource for this.

Then look at plant or seed catalogs or plants at the garden center and choose what excites you most.

Emily Yeap: Maintenance is crucial once your garden is planted.

Alsup-Egbers: Many herbaceous perennials, and that's the plants that don't form woody stems, need dividing every few years to look their best. Some will get so crowded they end up dying out in the middle. You can cut them in pieces, making sure each has some roots and some shoots. I usually use a shovel to do this. You can plant divisions elsewhere, give them away, or, as a last resort, compost them. Examples of some of these perennials that need divided include daylilies, irises, coneflowers. Then transplant plants that have outgrown their space to a larger area or divide those.

I highly recommend you add mulch around plants. Mulch is any material that covers the soil surface. Mulch helps a great deal to keep weeds from getting established. I prefer using an organic mulch like straw or wood chips because as these decompose over time, they help improve the soil quality.

If you use an organic mulch, 3 to 5 inches deep is best. The drawback to organic mulches is they do break down and have to be reapplied every few years. Alternatives include black plastic, landscape fabric and decorative rocks.

If you're growing food and have the space, try to rotate what you plant each year to different locations. Planting crops that are similar in the same spot each year encourages a build up of pests, such as diseases and insects.

Emily Yeap: Alsup-Egbers offers a few key gardening mistakes to avoid.

Alsup-Egbers: Don't get overambitious, especially if you're new to gardening. A 10 by 10 foot garden is a good starting point actually, and you can enlarge the space as you gain experience. Gardeners tend to become burned out if they try to plant too much and are overwhelmed, or chained to their garden.

Don't neglect your soil. I once had a professor who liked to say, "Plant a 50 cent plant in a $5 hole." These days, of course, it's plenty more expensive, but the point is you should put work into having healthy soil before planting anything.

Alsup-Egbers: Over-watering is a big mistake. Plants outdoors need about an inch or so of water a week, whether it comes from rainfall or irrigation. If you water more frequently than that, the plants' roots stay near the soil surface instead of growing down deeply in search of water.

Another mistake, over-fertilizing. Too many nutrients can damage the plants, and too much nitrogen can result in lots of foliage growth, but few or no flowers or fruit.

Finally, I'd say not harvesting often enough. Plants will stop growing new flowers or fruit if you don't remove what they've already produced.

Emily Yeap: That was Dr. Clydette Alsup-Egbers, associate professor in the Department of Environmental Plant Science and Natural Resources at Missouri State. I'm Emily Yeap for the Missouri State Journal.

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