**Growing Up: Vertical Gardening**

**Presented by JoAnn Weaver, U of M Extension Master Gardener in Crow Wing County**

**Vertical gardening has the potential to save you time and work. This presentation offers information on site and plant selection so you can make the most of the space you have. In addition, with this style of gardening you’ll find there is an added benefit of enhancing your personal landscape with beautiful plantings that produce high yields while reducing pest and disease problems.**

**Why vertical gardening?**

* **Maximize limited space**
* **Allow more variety/produce higher yields**
* **Decrease maintenance**
* **Provide shade/camouflage eyesores**
* **Divide space/create rooms**
* **Provide unique visual effects**
* **Add romance/mystery/privacy**

**Supports (make certain the support is sturdy enough for the mature plant):**

* **Arbor**
* **Arch**
* **Pergola**
* **Trellis**
* **Tower**
* **Bamboo**
* **Fencing/Netting**
* **Concrete reinforcement wire**
* **Tomato cage**
* **Other (shepherd’s hook, stacking pots, etc.)**

**Some of the ways that plants climb:**

* **Twiners – twist their stems or leaves around a support**
* **Tendrils – slender, wiry growths that extend about an inch and curl around a support**
* **Scramblers – unable to climb on their own, need to be secured with gardening string or wire**
* **Stickers – also have stem tendrils but tendrils come with their own adhesive**
* **Just remember – first it sleeps, then it creeps, and then it leaps**

**Site/Plant Selection:**

* **Annual or perennial?**
* **Sun/shade requirements**
* **Hardiness zone/frost protection**

**Containers:**

* **Raised beds – 12/31/03 companies required to stop treating wood with CCA (chromated copper arsenate)**
* **Pots with drainage**
* **Wooden pallets: Safety a concern if growing edible plants. Some countries require pallet manufacturers to treat the wood before using for shipping. This is done to prevent pests from surviving in the wood and being transferred from country to country. Look for the International Plant Protection Convention (IPPC) logo on the pallet. On that logo will either be heat treated (HT) or kiln dried, or methyl bromide (MB). Also, no way of knowing what was shipped in the pallets. Avoid methyl bromide treated pallets. Using a new pallet best. Wash with hot, soapy water/bleach, and allow it to dry thoroughly. Consider painting or sealing the pallet as well**
* **Window boxes/Deck rail planters**
* **Rain gutters – white reflects light requires less water**

**Soil and compost:**

* **Less area involved thus need to prepare the depth of planting area to a greater degree**
* **Characteristics of good gardening soil**
* **Soil test?**

**What to plant:**

* **Climbing vegetables: Pole beans, Peas, Cucumber, Malabar spinach, Watermelon, Pumpkins, Squash, Tomatoes (heavy vegetables such as melons, squash, etc., may need hammocks). Lettuce, greens, and radishes (these have shallow roots)**
* **Herbs: Basil, Oregano, Marjoram, Chervil – anything small with shallow root system**
* **Fruits: Grapes, Strawberries**
* **Ornamental annual vines: Hyacinth Bean, Cardinal Climber, Black-eyed Susan Vine, Passion Flower, Morning Glory, Moonflower, Mandevilla**
* **Perennial and woody vines: American Bittersweet, Hops, Dutchman’s Pipe, Trumpet Vine, Clematis, Honeysuckle, Wisteria <http://extension.illinois.edu/vines/perennials.cfm>**
* **Climbing Roses <https://extension, umn.edu/garden/yard-garden/flowers/hardy-roses/>**

**Maintenance:**

* **Weeds:**
* **Watering:**
* **Fertilizing:**
* **Pruning:**

**Pests and disease:**

* **Eye level problems easier to see**
* **Plants dry off faster as off the ground and exposed to moving air**

**Disadvantages:**

* **Limited space for roots**
* **May be limited to smaller varieties**
* **Dry out quickly**

**Resources:**

* [**www.extension.umn.edu/gardeninfo**](http://www.extension.umn.edu/gardeninfo)
* [**http://extension.illinois.edu/vines/perennials.cfm**](http://extension.illinois.edu/vines/perennials.cfm)
* **“Vertical Gardening” Derek Fell**
* **“Morning Glories & Moonflowers” Anne Halpin**
* **“Midwest Fruit & Vegetable Gardening” Katie Elzer Peters**
* **“Classic Garden Structures” Jan & Michael Gertley**
* **“Minnesota Hardy” booklet – University of Minnesota**

**“No occupation is so delightful to me as the culture of the earth…..and no culture comparable to that of a garden….But though an old man, I am but a young gardener.”**

**Thomas Jefferson**