8 Weeks of Plants

**Trees**

1. **Aspen** *Populus*

**Swedish Columnar Aspen** *Populus tremula ‘Erecta’*

* Used as a vertical accent or screen
* Full sun to part shade
* Moist well drained soil
* 40ft tall by 6ft wide (plant no closer than 6 ft apart center to center)
* Leaves at the top of the tree can get to the size of dinner plates!
* Branching starts at the base of the tree

**Quaking/Trembling Aspen** *Populus tremuloides*

* Native Aspen
* Produces a powder on its bark that was used as sunscreen!
* Flattened petiole makes the leaf shake in the wind, giving the tree its name

**Common Problems: (Severe damage or death) Bronze Leaf Disease, Aspen Borer, (Ornamental) Leaf Miners, Leaf Rollers**

1. **Apples** *Malus*

**~ See Our Brochure ~**

**Common Varieties:**

**Combination Apple –** Good forsmall yards and have many varieties on one tree. Be cautious with pruning, cutting off a whole branch will result in losing a variety.

**Harcourt** – Crisp red, good for fresh eating and storage

**Goodland** – Late season fruit, green apple with red blush

**Heyer #12 –** Yellow apple, good for cooking - turns translucent.

**Hardi-mac –** Most like a Macintosh **–** Crisp and juicy! Good for fresh eating and cooking

* Trees start producing fruit at 3-5 years. Fruit is produced on the “spurs”.
* All have white blooms (five petals in early spring)
* Apples have different uses (fresh eating, baking, storage.)
* It’s best practice to prune the tree so that the branches remain close to the ground (easier to pick). Either pick off blooms or immature fruit to get the best apples out of your tree. An indication of a tree needing fertilizer is if the fruit is mushy, or tasteless.
* Needs to cross pollinate with any other apple, crabapple, or pear.

**Common Problems (all apples): Fire blight (ornamental) Cedar/Apple Rust**

1. **Crabapples** *Malus*

**Common Varieties:**

**Spring Snow –** Sterile tree (no fruit)**.** Profuse white flowers in spring

**Gladiator –** Showy pink flowers, purple foliage.

**Spire –** Columnar crabapple with two main varieties – Emerald Spire (green leaves) and Purple Spire (purple leaves)

**Courageous –** Pink flowers and bronzy colored leaves.Doesn’t produce a significant amount of fruit.

**Thunderchild –** pink flowers, purple foliage

* Used for spring flowers (pink or white)
* Some fruit edible – Ex. Dolgo Crabapple
* Some produce ornamental fruit – Ex. Rosy Glow Weeping Crabapple
* Some sterile or have little to no fruit – Ex. Spring Snow Crabapple
* Small to medium trees, good for front yards
* Apple trees are usually grafted onto a hardier root stock, suckers coming from the base of the tree will likely not be the desired variety, but the root stock.

**Common Problems (all apples): Fire blight, (ornamental) Cedar/Apple Rust**

1. **Cherries and Plums** *Prunus*

**~ See Our Brochure and Pollination Chart~**

**Common Varieties:**

**Schubert chokecherry** *Prunus virginiana “Schubert” –* Cultivated for their purple leaves, Edible tart choke cherries

**Evans Cherry** *Prunus cerasus ‘Evans’ -* An extremely hardy tree, produces sour cherries. Self-pollinating

**Romance Series Cherries** *Prunus x kerrasis* **–** Prairie hardy trees, pest resistant, sweeter than most cherries but still tart. All are self-pollinating.

**Muckle Plum** *Prunus x nigrella ‘Muckle’* **–** Pink flowering ornamental tree with no fruit

* Small to medium sized trees
* Some ornamentals, some cultivated for their fruit
* White blooms become fruit good for canning, jellies, fresh eating, etc.
* Most will need to cross pollinate with another variety of plum/cherry
* Fruit tree bark is sweet and appealing to animals. Protect with a tree wrap – a coil of plastic that wraps around the base of the tree. Only use in the fall/winter as leaving it on for prolonged periods of time will girdle your tree.

**Common Problems: Black Knot, Suckering**

1. **Birch/Willow** *Betula/Salix*

**Common Varieties:**

**Parkland Pillar Birch** *Betula platphylla ‘Jefpark’ –* Used as an alternative to Swedish Columnar Aspen.

**Dakota Pinnacle Birch** *Betula platphylla ‘Fargo’* – Narrow columnar form. Insect resistant and drought tolerant.

**Laurel Leaf Willow** *Salix pentandra* – Very hardy,low headed and rounded form tree. Great for wind breaks, but messy.

* Weeping varieties make good feature trees in large spaces.
* Birch and willows are good for moist locations. Willows will tolerate wet feet.
* Willows get large quickly (we don’t sell them in wire basket sizes because they don’t take well to transplanting when mature. Best to plant when small, they’ll grow faster this way too.)
* Produce insignificant flowers called catkins
* Keeping your trees watered will keep them healthy, allowing them to fight off pests and diseases.

**Common Problems: (Ornamental) Messy, (Severe Damage or Death), Bronze Birch Borer.**

1. **Maple** *Acer*

**Common Varieties:**

**Amur Maple** *Acer ginnala –* Smallest maple tree, with creamy white flowers in spring.

**Royal Red Maple** *Acer platanoides ‘Royal Red’ –* Hardiest purple leafed maple

**Prairie Splendor Maple** *Acer platanoides ‘Prairie Splendor’ –* Maroon purple foliage, and clusters

of small yellow star shaped flowers in springtime

* Use as an accent for bright red fall color
* Does not like wind! Keep protected.
* Flowers turn into samaras (“helicopter” like seeds)
* Prune in late summer after leaves are fully developed, will bleed sap if pruned in late winter or spring.
* Sugar Maples do not grow well enough here for us to stock them.

1. **Spruce** *Picea*

**Common Varieties:**

**Columnar Blue Spruce** *Picea pungens ‘Fastigiata’* – A good blue spruce for smaller landscapes**.**

**White Spruce** *Picea glauca* **–** Large, hardy, native spruce. Great for wind breaks.

**Colorado Green Spruce** *Picea pungens* – Incredibly hardy and often used as a wind break.

**Fat Albert** *Picea pungens glauca ‘Fat Albert’ –* Dense spruce with a wide base giving it a

‘rounded’ appearance.

* Hardy evergreen (4 season interest.)
* Use as a vertical accent in parks or as a shelter belt (plant no closer than 15ft center to center.)
* Large tree - can get up to 60ft tall and 20 ft wide. Smaller weeping varieties may be better for residential areas.
* Needs moist well drained soil. Roots will pull water and nutrients from the topsoil so don’t plan to plant much under/around these trees.
* Deer resistant

1. **Pine** *Pinus*

* Large pyramidal shaped trees.
* Long needles in bundles (2 or more needles connected to the same place on a tree)
* Use in large landscapes, or as a windbreak
* Hard woody pinecones
* Deer resistant

1. **Extra!**

**Ohio Buckeye** *Aesculus* *glabra*

* Rounded tree form
* Palmate leaves (many leaflets attached to the same stem)
* Interesting yellow spring flowers turn to large brown fruit capsules (toxic)
* Orange/red fall color
* Part of the same family as lychees!

**Linden** *Tilia*

* Pyramidal form tree
* Fragrant yellow flowers
* Bright yellow fall color
* Great for small yards and boulevards (pollution tolerant)
* Tall and good for shade.

**Burr Oak** *Quercus Macrocarpa*

* Hardiest oak
* Good for with large landscapes, or as a generational/memorial tree
* rough bark and gnarly branches
* lobed leaves and acorns
* Orange fall color

**Elm** *Ulmus*

**Common Varieties:**

**Brandon elm** *Ulmus americana ‘Brandon’*

**American Elm** *Ulmus americana*

* Vase shaped tree
* Fast growing
* Hardy and pollution tolerant
* Often used along streets, and in larger landscapes for shade
* Brilliant yellow fall color

**Common Problems: (Severe damage or Death) Dutch Elm Disease**

**Shrubs**

1. **Spirea** *Spirea*

* Compact, rounded habit of growth. Fine textured
* One of the easiest shrubs to grow (contractor plant)
* Full sun to part shade, moist soil, and pollution tolerant
* Depending on varieties they will flower either through spring or summer (remove spent blooms to promote new ones)
* Fall color orange or red

1. **Lilac** *Syringa*

**Different Forms:**

**Shrub –** (Common Lilac, Prairie Petite, etc.)

**Top Graft –** Shrub varieties grafted to look like a tree (Miss Kim and Korean lilacs are commonly made into this form)

**Tree –** True tree lilac. We only carry the Ivory Silk Lilac *Syringa reticulata ‘Ivory Silk’*.

* Plant In full sun. Tolerant of a wide range of soil conditions
* Fragrant spring flowers in purple, pink, white or “blue” (President Grevy Lilac) (bloomerang will flower twice in one year)
* Size varies (Ex. 12ft common lilac, or 3ft petite prairie lilac)
* Fast growing and often used for privacy hedges or shelterbelts
* **Vulgaris –** Frenchvarieties that do sucker. Have shiny tops to their leaves.
* **Prestoniae –** Non suckering lilacs. Dull looking leaves

1. **Potentilla** *Potentilla fruticosa*

* Very hardy shrub, drought tolerant once established
* Small to medium sized shrub with a fine texture (small leaves)
* Flowers all summer. Warm colored blooms (white, yellow, orange, pink)
* Mature bark shreds
* Can be fully cut down to rejuvenate

1. **Hydrangea** *Hydrangea*

* A shade tolerant shrub
* Fall flowers can be cut or dried for floral arrangements or left on the shrub for winter interest
* **Paniculata –** Oval shaped blooms, flowers on old wood and can tolerate more sun
* **Arborescens** – Rounded bloom, flowers on new wood, does best in shade
* Apply a thick layer of mulch around the base of the shrub to protect the root zone
* **Macrophyllas –** Pink/blue colored blooms change depending on ph of the soil. Our growing season isn’t long enough for these shrubs to bloom.

1. **Fruit Bearing Shrubs**

**~ See Our Brochure and Pollination Charts~**

* **Haskap/honeyberry/honeysuckle** *Lonicera caerulea* **–** Described as a cross between a raspberry and a blueberry. Need two shrubs to cross pollinate. Only certain ones will cross with others (see pollination chart).
* **Raspberry** *Rubus idaeus* **–** self-pollinating shrub, but yields increase with multiple varieties. Sucker and are often used in naturalized areas. Thorny branches.
* **Blueberry** *Vaccinium –* Compact shrubs that prefer acidic soils. Self-pollinating but yields increase when crossed with another variety.
* **Saskatoons** *Amelanchier –* Self-pollinating but yields increase when crossed with another variety. Yields are also maximized when in full sun. They prefer sandy-loam soils.
* **Goose Berry** *Ribes –* Native shrub with lobed leaves. Prickly stems and self fertile.
* **Jostaberry** *Ribes josta –* Cross between a black currant and a gooseberry. Thornless
* **Goji berry** *Lycium barbarum –* Fast growing shrub that’s drought tolerant once established. Berries are considered a superfood.

1. **Ninebark** *Physocarpus*

* Grown for interesting foliage colors (bright green, yellow, orange, and purple)
* Clusters of flowers in late spring
* Sizes vary from 2ft to 10ft
* Full sun, well-draining soil
* Gets its name from the fact its mature bark peels away in thin strips to reveal multiple colors of underlaying bark.

1. **Juniper** *Juniperus*

* Evergreen shrub for 4 season interest
* Full sun to part shade
* Slow growing
* Multiple sizes and forms. Upright junipers are only blue and can be topiaries (pruned into different shapes like spirals or “pom poms/poodle tails”. Horizontal junipers can be green or blue and reach different heights as well.
* Purple cone like berries and purple “fall color”

**Common Problem: (Ornamental) Juniper/Hawthorn Rust**

1. **Dogwood/Willows**

**Dogwood** *Cornus*

* Great for moist locations
* Grown for its bark! Bright red or yellow bark gives significant winter interest.
* Red fall color
* Ornamental berries
* Medium to large sized shrubs

**Willow** *Salix*

**Common Varieties:**

**Pussy Willow** *Salix discolor –* Native, great in wet locations, pussy willow branches often used in spring for decorations.

**Flamingo Willow** *Salix integra ‘Flamingo’ PP17490 –* new growth is pink/white before turning green with age.

* Great for moist locations
* Flowers called catkins
* Fine textured
* Small to large sized shrubs

1. **Barberries** *Berberis*

* Yellow flowers in spring
* Red ornamental berries
* Thorny (great for privacy hedges)
* Many colors all season long! (Green, yellow, pink, purple)
* Has a generally rounded shape

**Perennials**

1. **Daylily** *Hemerocallis*

**~ Included in the Lily Sale~**

* Full sun
* Moist but well-draining soil
* Warm colored blooms only last a day
* Edible
* A good “sharing plant.” Many daylilies need to be divided every 3-5 years to encourage vigorous growth and strong blooms. These divisions may be shared with your neighbors!

1. **Hosta** *Hosta*

* Tolerates a wide range of soil conditions depending on varieties but prefers moist well drained soil in shade.
* Flowers appear in late spring or early summer. Blooms are either white, pink or purple.
* Sizes vary from 6 inches (Blue Mouse Ears Hosta) to 40 inches (Jurassic Park Hosta)
* Often used as a borer plant with different shades and variegations
* Leaves can be used as a filler in floral arrangements

1. **Grass** *Calamagrostis*

* Often used as a border or mass plant, can be used for accents too. (Karl Foerster’s Feather Reed Grass is most popular).
* Plant in full sun to part shade
* Soil should be moist and well-draining
* Brings winter interest as seed heads persist
* Trim down in spring

1. **Shade Plants**

**Astilbe** *Astilbe*

* Fine textured
* Upright feathery plumes of flowers in white, pink or red.
* Prefers “woodland” like conditions.
* Use as a border plant

**Iris** *Iris*

* Butterfly like blooms on tall stems
* Usually purple/blue with yellow veins
* Grass like foliage, in green, white variegated or gold variegated.

**Bleeding heart** *Dicentra*

* Long standing heart shaped blooms
* Pink, white and/or red.
* Fern like foliage

**Coral bells** *Heuchera*

* Full sun to full shade
* Need moist well drained soil
* Low and compacted mound
* Grown for its colorful foliage (usually purple, but can be found in many colors)
* Dainty bell-shaped blooms rising above the plant in white or pink

1. **Stonecrop** *Sedum*

* Use as a groundcover plant
* Plant in full sun with moist soil, drought tolerant once established
* Many colors (green, yellow, red), turns bronze or red in fall time
* Flowers in summertime (Autumn fire sedums blooms can be used for floral and dried arrangements)
* Famine food – young plant can be cooked and eaten in emergency situations. Has been used as an herbal remedy at times.

1. **Lilies** *Lilium*

**~ Included in the Lily Sale~**

**Asiatic Lilies** – Developed in/native to Asia. Usually little to no scent.

**Oriental Lilies –** Hybrids from Japan. Usually heavily scented.

**Tiger Lilies –** Downward facing blooms

* Usually used as border in a sunny garden.
* Blooms in summertime
* Excellent cut flower
* Bulbs need to be planted deep as they can “climb out of their pot”

**Common Problems: Red Lily Beetle**

1. **Silver Plants**

**Silver Mound Artemisia** *Artemisia Schmidtiana ‘Nana’*

* Fine textured aromatic silky foliage.
* Great contrast plant
* Use as a border, or plant in masses
* Non spreading
* Insignificant flowers
* Can be cut down to rejuvenate mid-season

**Snow in Summer** *Cerastium tomentosum*

* Often used as a groundcover.
* Dainty, star shaped, white flowers in late spring.
* Spreading habit

**Silver Brocade Artemisia** *Artemisia stelleriana ‘Silver Brocade’*

* Deeply lobed foliage
* Dense, low lying growth habit
* Non spreading
* Great contrast plant

**Lavender** *Lavandula*

* Green-gray foliage
* Fragrant purple flowers rebloom throughout the season

1. **Groundcover**

**Thyme** *Thymus* **–** Dense, low-lying mat, covered in pink flowers year-round**.**

**Phlox** *Phlox* **–** Hardy and requires minimal care. Dense white, pink, and blue blooms in spring.

**Moss** *Sagina***–** Dense green mat with delicate white flowers

**Dead Nettle** *Lamium* **–** Wide, pointy silver leaves with a green margin. White or purple “dragon head” shaped flowers.

**Sweet woodruff** *Galium odoratum* **–** Dainty aromatic cover, with small star shaped flowers.

1. **Xeriscape/Sun**

**Yarrow** *Achillea millefolium –* Clusters of flowers on top of dark green fern like foliage all summer. Mass, border, and naturalized area plant.

**Blanket flower** *Gaillardia* **–** Large profuse blooms in yellow and red.

**Black Eyed Susan** *Rudbeckia –* long lasting blooms in yellow/orange and black.

**Fescue** *Festuca* **–** Mounds of silvery grey foliage

**Hens and chicks** *Sempervivum* – One of the easiest most neglect tolerant plants. Succulent, with pink blooms.

**Annuals**

**Vegetables**

1. **Tomatoes/peppers**

* Keep moist, and in full to part sun.
* Suckers in the crotch of the plant (where the stem intersects) pinch off to have higher yields
* Hairs on the stems are called “roots or shoots”. Remove lower branches and plant deeply to make a stronger plant
* Prone to blossom end rot. Supplement with calcium to get rid of (fertilizers advertised as tomato food will have calcium in it.)
* Come in many colors (red, green, orange, purple etc.)
* **Determinate** - Bush tomatoes – usually only reach 4 feet and then the rest of the growth is side shoots. Do well in cages and need minimal staking. Ex. Roma, and Celebrity
* **Indeterminate –** more vine like growth, reaching up to 6 feet. Need a cage and staking. Ex. Beefsteak and most cherry type tomatoes.

1. **Potato/onion**

* Plant in full sun (about 6-8 hours in a day)
* Plant in early spring once the ground is workable
* Potatoes should be buried and then covered with soil once shoots start to grow. Do this 2-3 times over a month. (This is called mounding)
* We have pots that allow you to grow potatoes in containers and periodically harvest from without killing the plant too! Ask for potato pots in the greenhouse
* Onions need to be planted in shallow soil. Keep the neck (opposite side of the roots) above ground to prevent them from rotting.

1. **Cucumber**

* Can be started indoors or directly sown outside.
* Like high sun and warm conditions
* Need lots of space as they are vining plants
* Plant dill or basil (and allow it to flower) to attract pollinators
* Pick regularly to increase yields

1. **Squash Winter/Summer**

* Summer squash is picked before the fruit is fully mature and the rind is still soft. An example of such is a zucchini.
* Winter squash is harvested after the rind has toughened (so that it can withstand the fall/winter frosts and is better for storage.) An example of such would be pumpkins or butternut squash.
* Plant in bright light with well-draining soil.
* Need consistent moister but do not get on the leaves – prone to powdery mildew.

**Other annuals**

1. **Petunias**

* Most popular flowering annual, usually in hanging baskets.
* Flowers are funnel shaped and come in any color, including spotted or multicolored. Rebloom all summer long (encouraged by deadheading)
* Grow in full sun
* Keep soil moist
* Nontoxic to pets and children
* Types include Wave Petunias (usually desired for draping ability. Great for Hanging baskets!), normal petunias (upright/mounding growth), and calibrachoa (some trailing growth with small, petunia-like flowers).

1. **Herbs**

* Plants grown for their leaves (or occasionally flowers) to flavor food.
* Grow in bright light, and keep moist (type dependent)
* Can be grown on windowsills/indoors and via hydroponics (meaning in water not in soil)
* Pruning herbs will lead to a fuller plant (like basil and mint) and prevent flowering (herbs that have flowered taste more bitter.
* Coriander and cilantro are the same plant. Cilantro is the leaf before it flowers. Coriander is the leaf (after flowing) and the seed.
* Annual lavender is grown as a herb. If it’s found in the greenhouse it is culinary (having a better taste than perennial lavender for example) but likely won’t come back next year. (You can also find top grafted forms of lavender in the greenhouse too. These are ornamental and will not survive out winter)

1. **Geraniums**

* Garden geraniums are perennials. Any found in the Greenhouse would be an annual
* Like full sun, water when dry
* Flowers come in a range of colors (white - red)
* Promote reblooming by deadheading (snap off the whole spent flower head back to where it connects on the plant)
* Usuallymounding in shape, but ivy varieties are available.
* Citronella is a type of scented geranium used to repel mosquitoes

1. **Shade**

**Begonias** – Fleshy stem and leaves with delicate flowers. Female flowers will look relatively simple, while the male flowers will have multiple rows of petals. Prune your begonia if they become leggy.

**Impatiens-** Some impatient have been developed to grow in the sun but do best in part shade.

1. **Sun**

**Marigold** *Tagetes*– Great for hot and dry locations. Plant them as a border for natural pest control!

**Zinnia** *Zinnia* **–** Many colors to choose from. Zinnias bloom best in full sun! Great as a cut flower too.

**Sunflowers** *Helianthus* **–** Sunflowers come in different sizes and warm colors!

**Houseplants**

1. **Succulents/Cacti**

* Desert like conditions (dry and lots of sun)
* Natural “sunscreen”
* Come in almost any color
* With proper care they flower regularly. If succulents flower directly from the center that means they have reached the end of their life cycle (called a “death bloom.”)
* Can be prone to pests like mealie bugs. Check between leaves for a sticky, cotton like substance.
* Nontoxic

1. **Pothos**

* Low light tolerant (prefers bright indirect light)
* Allow to dry out before watering
* Commonly used in hanging baskets but can climb, thanks to aerial roots.
* Easy propagation, put leaf cutting with node (bump where stem is attached) in water.
* Great beginner plant! Called “Devils Ivy/vine” in some places because it’s nearly impossible to kill and becomes invasive!
* Highly toxic if ingested

(Monstera same needs, classic leaf shape with fenestrations (holes) people like)

1. **Snake Plant** *Sansevieria*

* Queen of low light conditions.
* Air purifying
* Let dry out before watering
* Produces “pups” (shoots are new baby plants)
* Sizes vary between 4inches and 7 feet tall!
* Poisonous if ingested

1. **Peperomias**

* Medium to bright light
* Well-draining soil – allow to dry in between watering
* Many varieties in different colors from green to purple and variegated.
* Upright, mounding, and trailing growth patterns
* Insignificant spike flowers look like a” Chicken foot” on some
* Nontoxic

1. **Ferns**

* Need indirect light
* High humidity (mist occasionally and keep on a pebble tray)
* Avoid placing under or around vents
* Fertilize every 2-4 weeks (not full strength)
* Some varieties will unfurl new leaves in pink or orange before maturing to green (Ex. maidenhair fern).
* Nontoxic

1. **Carnivorous plants**

* Used for pest control, like for fungus gnats
* Bright light – 6 hours of light a day
* Keep moist (even in a small dish of water)
* Do not fertilize or feed meat (you can hand feed them bugs you’ve captured)
* Traps tend to die back and turn black after catching a meal – this is normal – just cut them off
* Nontoxic
* **Venus Fly Trap –** Known for their showy “jaws” that snap closed around insects. Only get about 4-5 inches tall
* **Pitcher Plants –** Jug like traps hanging from the ends of each leaf. Depending on the variety, pitchers can get up to 6 inches or larger.

1. **Prayer Plants/Calathea**

* Calathea can be a tricky houseplant to keep but their beautiful foliage is so rewarding!
* Keep moist, not wet, and with high humidity. Allow the top couple of inches to dry out before watering a prayer plant.
* Tolerate lower light levels, but prefer medium, indirect light
* Leaves will slowly move throughout the day
* Nontoxic