

Definition of Terms and Things to Consider

This document was created to support the Spring 2022 Loess Hills Wild Ones native plant sale spreadsheet containing specific information about each plant to help you select the plants to suit their growing conditions and the aesthetics and services you desire.

The spreadsheet is extensive. Manipulate it as needed to narrow down your options. For example, if you do not have full sun, delete plants indicated with only “Full”, and choose among those with “Part” and “Sh” that remain. Because of the double-headers, to sort, select the rows of plants, then choose which columns to sort. The spreadsheet will be sorted by Botanical Name when you download it; the order form and program slide show are also arranged alphabetically by Botanical Name.

*Terms here are listed as they appear left to right in the spreadsheet header. Other terms not listed in the spreadsheet have been included where it seemed most appropriate. These are indicated in **red**.*

SPECIES

Common name - A plant can have many names, and the same name can refer to many plants. It's a good practice to use botanical names when researching or referring to a species.

Botanical name - Also known as the scientific, binomial, or Latin name. The first word indicates the genus and the second is the specific epithet, and together they denote the species. A third word often indicates a variety or cultivar, which native plant enthusiasts should generally avoid since often the value to insects has been unintentionally or intentionally compromised. Botanical names can and do change as more is learned about particular plants, for example some *Aster* species are now *Symphyotrichum*.

SUN EXPOSURE - The sun moves throughout the day and throughout the year, so keep that in mind when considering a site as you plan during the winter months. Buildings cast solid shadows, as can tree canopies depending on density of the foliage.

Full - At least six hours of direct sunlight.

Part - Three to six hours of direct sunlight, or more hours if in dappled shade.

Shade - Fewer than three hours of direct sunlight.

SOIL - Native plants tend to have long root systems, so we recommend choosing plants to suit your soil. However, many gardeners choose to amend their soils to address drainage issues of clay or add organic content to sand. Many species have evolved to survive in “poor” soils, which can also help keep aggressive species in check.

Definition of Terms and Things to Consider

SOIL MOISTURE

Wet - Site almost never dries completely. Moisture can be squeezed out of the soil, and the soil sticks to your hands rather than itself.

Moist - Rarely dries out beyond the first inch. Soil will feel damp or cool and will stick together when squeezed.

Average - Doesn't remain too damp a few days after a rain event, but doesn't crack or turn to dust unless under extreme drought.

Dry - Can be dusty and rocky, generally considered a poor area for plants, but we will have a native that will love it.

Well-drained - There's some variation in what is considered well-drained according to the following test: Dig a hole with straight sides one foot wide and one foot deep. Fill it with water and let it drain completely, at least 12 hours. After 12 hours, fill the hole with water again, insert a yardstick vertically into the hole with something laid horizontally to measure from. Then time how long it takes to drain. (1) One source considers it fast-draining if it's empty within 15 minutes, while up to an hour is "well-drained," and if more than four, recommends you use plants suitable for wet locations. (2) Another suggests that ideal soil drainage is around 2" per hour, with readings between 1"- 3" generally OK for garden plants that have average drainage needs. If less than 1" per hour, your drainage is too slow, and if more than 4" per hour, it's too fast. (3) When measured every 10 to 30 minutes (depending on how fast the water drains), calculate the average drop in water level per hour. More than 6 inches per hour is too much. 1 to 6 inches is good, and less than 1 inch is poor.

SOIL TYPE - Soil is a complex mix of organic materials, mineral particles, living organisms, moisture, and chemical nutrients. Differing proportions result in sandy loam, silty loam, clay loam, sandy clay loam, silty clay loam, and loam. These can be layered, so you may have one type of topsoil and a different subsoil, and you can have different soils in different areas of your yard. Soil's texture and ability to support plant growth depends on the size of its mineral particles which determines how water and nutrients are collected and released.

Loess - Loess, like silt, feels fine and floury when dry. It seems to dissolve in water and becomes a very smooth mud, less sticky than clay. Considered very fertile, it drains well, but is also highly erodible.

Clay - Clay is composed of fine mineral particles with minimal organic material. It has tight pores, is easily compacted, and drains poorly. This often means roots of non-adaptable plants suffocate and the plants die. It is slow to warm in spring. It sticks to shovels and shoes in wet weather, and cracks and crusts in dry weather.

Sandy - Sand tends to have large, solid particles and doesn't form pockets for water to collect. Water runs out of sandy soil quickly, so it doesn't retain the nutrients that most plants need. Sand mixed into other soils can increase drainage. Sandy soil feels grainy and crumbles rather than clumps.

Loam - Loam is composed of sand, silt, and clay in relatively equal proportions. Loam contains more nutrients, moisture, and organic matter than sandy soils, and has better drainage and water and air infiltration than silt and clay-rich soils. Loamy soil is a well-balanced blend of sand, clay, and organic material and is favored by plants and gardeners alike for its airiness, perfect drainage, fertility, and workability.

Definition of Terms and Things to Consider

SIZE - Size is affected by soil, growing conditions, and competition from other plants. Some plants can be cut back in mid-spring to create a shorter, bushier plant with more blooms. When planting adjacent to walkways, consider if a plant may flop or grow too far over the walkway.

HEIGHT - A range, in inches, of how tall a plant *may* be at maturity without pruning.

WIDTH/SPACING - A range given in inches. This refers both to the potential expected diameter of the mature plant as well as how far apart to plant. Some recommend placing plants closer together to fill the space and make it appear fuller faster, reducing the need for mulch or weeding. However, some prefer a more curated look where specimens can be featured, or want to allow space to add other plants in future years.

BLOOMING PERIOD - This is the *range* when you may see blooms; few plants will bloom for the entirety of the range indicated. Many will bloom for just a few weeks, though deadheading can extend the period for some. Keep in mind that deadheading may delay or prevent seed development, so don't do it too late if you want the plant to reseed itself, or you want to collect seed or ensure seed is available for birds over winter. Deadheading can also help control plants that readily self-seed. Plants without significant flowers (like grasses and sedges) are indicated with an "o." Cell color generally reflects bloom color; many plants have white flowers.

HOST - These plants provide a special service in the survival of the insect species, typically by supporting larvae. Some insects are dependent on just a few species of plants, like monarchs and milkweeds.

FOOD SOURCE - Generally refers to nectar and pollen, but can include leaves, that insects need.

Butterflies & Moths - (L) Indicated with an "L" for Lepidoptera (both butterflies and moths).

Native Bees - (NB) This includes "solitary bees" that one source referenced in their database.

Bumblebees - (BB) Bumblebee queens overwinter in soil and leaf litter, emerging in spring to nest, lay eggs, and collect nectar and pollen. The first brood are worker females who then help collect food for subsequent broods over the next few weeks.

Hummingbirds - (H) The primary diet for hummingbirds are small insects, but they enjoy specific flowers as well. Instead of or in addition to sugar water feeders, overripe bananas can hatch multiple generations of fruit flies. Hummingbirds use spider webbing for nesting.

Other - Includes wasps, flies, beetles, birds, honey bees.

FORM - To help with visualizing the plants since height and width, and even many photos, can tell you only so much. Form can be affected by competition of other plants, above and below ground. Some plants that are tall may flop and would benefit from support of shorter, bushier plants. Knowing a plant's form can help you design a more aesthetically pleasing space.

NOTES - These include anything deemed noteworthy to consider, but should not be considered comprehensive nor consistent across species. Visit other resources for more information.

Definition of Terms and Things to Consider

Ecotype - Plants from one area are not exactly the same genetically as plants of the same species from another area. Species grow over a wide geographical range, but genetic differences occur as plants adapt to their specific location. Problems can include different tolerances to moisture and temperature extremes and bloom times that don't align with the insects that rely on that species. Using local ecotypes is less vital in the home garden because buildings, concrete, trees, and water drainage create micro-environments that differ from the prairies prior to human intervention. Urban and suburban soils and growing conditions are functionally different than undisturbed remnant Loess Hills prairie. ****Note that the plants in our sale are grown mostly from regionally sourced seed. If you require a specific ecotype, we can refer you to area growers.****

What to do when you get your plants - Keep them in a shady area; don't let them sit in direct sunlight or wind for long as they can dry out and get stressed very quickly. Keep the soil moist, but not sopping wet; let them soak in water for a few minutes, then drain.

How to plant your plugs - *(This is general advice; best practices may differ based on the soil, species, and vigor of the plant and its roots.)* Try to plant on a cool, cloudy day; if that's not possible, try to plant very early in the morning or late in the afternoon. Dig a hole a bit larger than the pot; ensure the surrounding soil is loosened.

METHOD #1: Remove the plant from the pot and gently tease out the roots, spreading them out in the hole. Replace some of the soil, lifting the plant and firming the soil underneath until the plant's crown sits even with the surrounding soil.

METHOD #2: Remove the rim of the peat pot to prevent moisture wicking. Cut through the bottom, poke holes in, or make some tears through the pot to help ensure roots can break through. Place the plug into the hole ensuring it is level with the surrounding soil.

Lightly tamp down the soil, creating a little moat for better water retention. Water immediately, and add back more soil if it settles too much.

Dry leaves are the best mulch, but seed-free straw, dry herbicide-free grass clippings, shredded paper, or wood chips work, too. Keep mulch at least an inch away from the plant, and don't use more than an inch or two (you can add more later, but keep it fluffy and don't let it get more than a couple inches deep - many of our plants prefer dry conditions once they are established).

If you have rabbits or deer, you may wish to "cage" your plants. Plastic pots can be reused or recycled; peat pots can be composted.

Maintenance - Native plants do not require fertilizer or supplemental moisture unless they're planted where they wouldn't naturally be happy otherwise. The first year, most new plants benefit from regular deep watering if rain isn't sufficient. In general, do not cut or remove plant material until late spring: foliage provides cover, seeds provide food, and stiff hollow stems are used by bees. Some plants will self-mulch if material is left alone. Some plants (and your neighbors) may appreciate having the previous year's growth removed. However, do NOT remove material too early in the spring. Research to learn more about what your specific plants and insects need.