

BOTANICAL SHAKESPEAREPLANTING INFORMATION:

A Midsummer Night's Dream

<u>ACORN</u> – *Quercus* spp.

Acorns are woody, hard, or leathery nuts (fruits) of oak trees, each containing a single seed. On the trees they are borne in small cuplike structures – hence acorn-cups. **Zones 4 – 10**. When ripe in autumn, acorns drop to the ground. Some germinate to become seedling oak trees that take many years to mature up to 150 ft. Important food for squirrels & other wildlife, & if treated to remove tannins, are edible for people.

<u>APRICOCKS</u> – *Prunus armeniaca*, apricots

Apricots are yellow-fleshed stone fruits produced by grafted 3-4-year-old apricot trees. **Zones 5 – 8**. Grow 15-20 ft. They thrive in full sun in well-drained rich soil; avoid frost pockets where early spring bloom is subject to frost damage. Dig a hole double the size of the roots, either containerized or bare root, insert the sapling so that the graft union is exposed, backfill & tamp before watering. Prune annually to remove suckers, encourage fruiting spurs on older wood, & to shape.

<u>BEAN</u> – *Phasiolus* spp. Include green, pole, lima, pinto beans etc. *Vicia faba*, fava/broad beans. Beans are the fruits (pods) that enclose the seeds of assorted annual bean plants. **Zones 3 – 10**. 2 – 10 ft. Grown either for their seed-bearing pods (e.g., snap or bush beans, pole beans) or for the seeds themselves (e.g., lima beans, pinto beans, fava beans) that are often dried. Start from seed indoors or directly after danger of frost. Plant in sun in fertile soil that drains well. Provide support for climbing sorts. Grown for human & animal feed.

 $\underline{BRIER/S} - Rosa(rose), Smilax(catbrier), Rubus(raspberry), Ulex (gorse).$

Briers (briars) are shrubby plants equipped with thorny or prickly stems, & often leaves too. Excellent for hedging to keep out intruders, man or beast. Edible raspberries & rose hips. **Zones 3 – 10**; 10 - 25

ft. Plant in a sunny location in well-drained, fertile soil. Enrich with compost; mulch until established. Prune to encourage new dense growth. To remove dig deep roots out fully.

BROOM – Cytisus scoparius

This deciduous European shrub retains evergreen stems. **Zones 4 – 9**; 3 - 6 ft. It grows all year long & often becomes invasive, also spreading by seed. It is cultivated for its bright yellow pea flowers. In years past its bushy stems were collected & used as long-handled brooms to remove dirt & dust. Today long-handled brooms are most often made of stiff fibers from corn stalks or husks, palm leaves, plastic, hair, etc. (if not plastic).

<u>BUDS</u> (BACHELOR'S) – *Centaurea cyanus*, cornflower, bachelor's buttons

This vigorous, annual self-seeding European wildflower has naturalized across the U.S. and become invasive in agricultural crops. **Zones 2 – 11**; 2 - 3 ft tall. Numerous florets in brilliant blues, pinks, purples and white congregate in 1.5-inch-wide heads that attract birds & butterflies. Start seeds indoors early or sow directly after the last expected frost, in sun or light shade where soil is of average fertility or even poor & drains well. Drought tolerant.

BURR - Arctium minus, A.lappa Lesser or common burdock, greater burdock

Burrs get their name from the "Velcro-like" clinging hooked barbs that cover the fruits; these are difficult to remove, especially from animals and fabrics. **Zones 3** – 7; 5 – 9 ft. Biennial, burdocks were brought to the U.S. for their roots used as vegetables, & their medicinal qualities. Start seed indoors in early spring & after frost plant out 18-inches apart in part or full sun in sandy, well-drained soil. Self-seeds readily; frequently is invasive.

<u>CHERRY</u> – *Prunus avium*, sweet cherry, *P. cerasus*, sour cherry

Plant cherries in late fall or early spring in full sun with good air circulation in well-drained soil. **Zones 5** – 7; 12 – 15 ft. Prepare a large hole to accommodate the roots. Backfill with soil, tamp & water thoroughly. Stake as necessary. There are many cultivated varieties; some are self-fertile, but others need another cultivar to provide pollen. Prune annually in late fall or winter according to the variety.

<u>CORN</u> – (see WHEAT).

<u>CRAB</u> (-APPLE) – *Malus* spp. Crabapples

Most varieties grow less than 20 ft. This rounded tree prefers well-drained fertile soils in full sun. **Zones** 4 – 8. Dig a deep hole for the root ball & double its width. After planting, backfill & tamp soil to firm; water thoroughly. Pink-and-white spring blossoms are pollinated by bees. Countless varieties; most ripen fruit in late summer & fall. A valuable pollinator for other apple crops. Prune in late winter to

<u>COWSLIP(S)</u> – *Primula veris.* Bunch of keys, milk maidens

In the wild, perennial cowslips often grow in cow pastures and damp meadows. **Zone 3 – 8**; 6 - 9 inches. Displays nodding clusters of primrose yellow, tubular flowers, attractive to spring pollinators. Provide full or part sun with average or heavy, organic soil; intolerant of constant wet feet. Divide established plants in fall. Start seed in fall; overwinter outdoors to break dormancy, protected from critters. Plant out seedlings or plugs 6 - 8 inches apart in spring. Self-seeds.

DIAN'S BUD (WORMWOOD) - Artemisia absinthium Absinth, old woman

The herb of Artemis or the chaste tree ($Agnus\ castus$). **Zones 4 – 9**; 1 – 3 ft. This European, bittertasting, silvery-leaved perennial has strongly aromatic, finely- cut foliage. Provide full sun in well-drained soil; tolerates poor soil, heat & drought, plus salt. Increase by cuttings, divide mature plants in spring or fall, or layer low stems. Prune in early summer for bushy growth. Erect spikes of pendulous yellow flowers bloom in late summer.

<u>DEWBERRIES</u> – Rubus trivialis Southern dewberry

A native, arching bramble-like shrub, with hairy stems equipped with sharp bristles. **Zones 4 – 9**; 2 - 3 ft. Showy white flowers attract pollinators in early spring; tasty 1 - 3-inch black fruits ripen in late spring, attracting wildlife. Grow in full sun or part shade in moist soils; often found as thickets in the wild. Cut back after harvest. To propagate divide mature plants or sever rooted stem tips in summer. Often invasive; difficult to eradicate.

<u>EGLANTINE</u> – Rosa eglanteria (syn. R. rubiginosa) sweetbriar, wild rose

The arching stems of eglantine bear vicious thorns and dark green, apple-fragrant foliage. **Zones 4 – 9**; 6 - 10 ft. Best in sun in rich, free-draining soil; suckers freely. Pale pink, sharply fragrant, single 5-petaled cupped flowers in spring into early summer; edible fruits (hips) follow, ripening red. Root softwood cuttings in spring, or layer flexible young branches. Prune dead or dying wood in early spring.

<u>ELM</u> – *Ulmus* spp.

Noble deciduous trees grown as specimens or street trees (elms tolerate urban pollution). **Zones 3 – 9;** 60 - 100 ft. Elms prefer full or part sun with fertile, well-drained soil. Select a cultivar resistant to Dutch elm disease, either started from seed or a cutting from a disease-resistant plant. Dig a large hole to accommodate the root ball, tease & settle the roots, backfill & tamp soil to firm. Water thoroughly & stake as necessary. Prune while dormant.

FIGS – Ficus carica

Figs thrive outdoors in warm winter zones; elsewhere overwinter indoors in containers. **Zones** (5)7 – 10. Some cultivars (e.g., 'Brown Turkey') survive to Zone 5. Plant outdoors in full sun in average soil. Plant container-grown plants directly as usual, or plant in a larger container for patios or decks. Keep watered, mulch with organic matter. Prune to thin branches if necessary. Figs produce fruit 1 – 2 years after planting.

GARLIC - Allium sativum

Garlic grows from a single clove from a head of garlic. **Zones 4 – 10**; 1 - 3 ft. Look for "seed garlic" produced especially for cultivation. Select a full sun location with fertile, well-drained soil. Plant cloves 3 - 6 inches apart & 3 - 4 inches deep some 4 - 6 weeks before the first hard frost. Keep watered & weeded; mulch in cold winter regions. Next summer flower stems (scapes) grow tall; remove to increase bulb size. Harvest bulbs after foliage withers.

<u>GRAPES</u> – *Vitis* spp.

Select a sheltered spot in full sun. **Zones 3 – 10**; 5 – 20 ft. Soak bare root plants overnight before planting. Dig a large, deep hole to accommodate the spreading roots, the lowest stem bud just above soil level. Backfill, tamp & water well. Replant containerized vines in larger receptacles. Prune out all but the strongest cane (stem). Flowers followed by fruit in summer. Prune annually when dormant. Provide a structure to support the vines.

GRASS – members of the Poaceae family

Numerous species of grass and sedges comprise grass lawns. **Zones 1 – 11**. Ideally, mow regularly to 2.5 inches; do not allow to flower & seed. Evergreen or deciduous, annual or perennial, start plants from seed or weed-free sod, in well-drained average soil in locations according to species. Appropriate types include fescues, honey-stalks, and stover.

<u>HAWTHORN</u> - *Crataegus* spp. Thorn apple, quickthorn, whitethorn, May.

Multiple cultivars; long-lived, thorny deciduous shrub or tree used ornamentally or as impenetrable hedges. **Zones 3 – 8**; 10 – 30 ft. tall. Abundant white spring flowers followed by small, maroon berries (haws) in fall. Plant container-grown specimens in spring in full sun to part shade in average soil. Dig hole as deep & twice as wide as the root ball, tease roots, then set in the hole & backfill, tamping as you go. Water thoroughly.

HEMP(EN) – Cannabis sativa. Marijuana

Annual hemp is grown for its strong fibrous stems. **All zones**; 4 – 15 ft. tall. Soil must be well-aerated, rich & deep, with good drainage. Seed directly when soil reaches 42 °F or higher; sow seed about 1-inch deep and 4-inches apart. Growth is rapid; keep well-watered. The dense leafy stems block out weeds. Harvest stems before seed develops; dry, turning like hay. Bale & process stems; the best quality fibers

<u>HONEYSUCKLE</u> – *Lonicera periclymenum*. Woodbine, common honeysuckle

This deciduous, woody vine produces clusters of 2-inch trumpet flowers on young stems from midsummer. **Zones 5 – 9**; 15 – 22 ft. Yellow-and-white flowers often flushed red; deliciously fragrant, attractive to hummingbirds; bird-attracting red berries follow. Plant containerized or bare root honeysuckles in spring or fall, in full sun to light shade, in organically rich, well-drained soil. Provide a structure to support this vine. Prune flowered wood immediately after bloom time.

IVY – Hedera helix English ivy

Potentially invasive and weedy, this evergreen thrives in part to full shade as well as full sun. **Zones 4 – 9**; 20 – 80 ft. It is aggressive and grows rapidly either upright as a vine or as a groundcover especially for winter interest. The plants root at the leaf nodes. Countless cultivars, some suitable for topiary, house plants, hanging baskets, etc. Plant young rooted cuttings from containers; propagate by rooting cuttings or layering.

<u>KNOT-GRASS</u> – *Polygonum aviculare* Common smartweed, spotted knotweed, prostrate knotweed. While valuable for its herbal properties, annual knot grass is a serious agricultural weed, often found in moist waste places worldwide. **Zones 4 – 8**; 6 – 15 inches. Far-reaching stems cover a wide area in full sun & light woodland, in most soils including very acid ones & even in coastal sand. White male & female flowers bloom early summer to fall & are self-fertile.

<u>LEEK</u> – *Allium porrum* Gourmet's onion, poor man's asparagus

Zones 6 – 9. 12 – 24 inches. Slow-growing, non-bulb forming relatives of onions, chives & garlic. Grown as biennials, sheaves of flattened blue green leaves appear the first year, blooms the next. Grow in full sun or part shade in loamy, moisture-retentive soil. Start seeds indoors in early spring; plant out when pencil thick, about 6 inches apart at the bottom of a 3-inch trench. Keep well-watered & weed free. Harvest through the winter. National emblem of Wales.

<u>LILY</u> – *Lilium* spp.

With about 100 species, countless hybrids & cultivars, lilies are popular for their beautiful, often fragrant flowers. **Zones 3 – 8**; 1.5 – 10 ft. Scaly bulbs produce stems topped with solitary, or clusters of flowers in multiple colors. Most thrive in full sun, some are woodlanders; well-drained highly organic soil. Plant bulbs in fall, about 3x their height. To propagate detach bulb scales, harvest stem bulbils, or start seed with protection.

<u>LOVE-IN-IDLENESS</u> (Pansy) – *Viola tricolor*. Wild pansy, heartsease, Cupid's flower, Johnny-jump-up. **Zones 4 – 9.** 4 – 8 inches. Love-in-idleness are cool weather annuals or short-lived perennials in warm regions. Their edible, fragrant flowers bloom from spring on; many repeat in fall. Start seed (65 – 75°F) indoors in late winter for spring planting. Best in part shade; protect from intense sun. Friable rich soil is ideal; avoid over-feeding. Deadhead spent blooms; prune back if plants become straggly. Excellent in containers & for cottage gardens.

<u>MULBERRY/IES</u> – *Morus* spp.

Female flowers produce the tasty fruit only if pollinated; some cultivars self-pollinate. **Zones 5 – 9**; 10 – 50 ft. Grow in full sun to light shade with moderately fertile, well-drained soil; tolerate seaside conditions but not wet feet. Tease the roots of containerized plants before planting; dig a wide hole, spread the roots, backfill, tamp & water well. Increase by semi-ripe cuttings. Summer prune side branches to encourage fruiting; when dormant prune to shape.

<u>MUSK-ROSES</u> – *Rosa moschata* Musk rose, Autumn rose

Musk roses have a loose, shrubby habit with very prickly stems; clusters of almost flat, single or semi-double, ivory flowers through summer. **Zones** 7 - 9; 5 - 10 ft. Each 2-inch bloom has a strong musky aroma; rounded orange to red berries (hips) follow. For best results plant bare root (soak overnight prior) or container-grown specimens in spring in sun with moist but well-drained, rich soil. Root softwood cuttings in spring or hardwood cuttings in autumn.

MUSTARDSEED - Brassica nigra, B. juncea black mustard, Indian mustard

Spicy round mustardseeds are less than ¼-inch wide enclosed in 1.5-inch pods. **Zones 9 – 10**; 15 – 18 inches. Seeds disperse widely, resulting in mustard becoming a serious weed of roadsides, waste & agricultural land. Grown as annual salad crops & for the production of table mustards & oils, yellow 1.25-inch blooms appear in summer, attracting countless pollinators. Sow seed in early spring; average soil is satisfactory.

NUTS (HAZEL) - Corylus avellana European hazelnut, filbert, cobnut

Hazel nuts are the smooth, woody fruits of hazel trees that enclose the kernels or seeds. **Zones 4 – 8**; 10 – 20 ft. Until they ripen (several months after spring pollination) they are enclosed in a fibrous husk. Grow in full sun or part shade in somewhat alkaline, organically rich, well-drained soil. Spread the roots out in a large planting hole, backfill with soil, tamp gently, & water thoroughly. It takes 2 – 5 years from planting to produce a good crop.

OAK – Quercus spp.

Long-lived, mostly deciduous trees with acorn fruits. **Zones 4 – 10**; 100 - 150 ft. Provide well-drained fertile soil in sun or light shade; tolerates lime. To start young seedlings, bury acorns 1 inch deep in well-drained soil; keep moist, protected from critters. Germination takes 4 - 6 weeks; grow on seedlings for a

year. Prepare a wide but not deep hole, spread the roots, backfill, tamp & water well. Prune to shape & remove dead, damaged or diseased wood when dormant.

<u>ONIONS</u> – Allium cepa

Onions are bulb-forming plants best grown in full sun, in organically rich soil. **Zones 5 – 9**; 15 - 36 inches tall. Grow from seed, transplants, or sets (small, 1-year-old bulbs). Start seeds indoors for spring planting; also sets & transplants are planted when soil becomes workable in spring. Plant about 1-inch deep & 3 - 4 inches apart. Keep weeded & well-watered, especially during dry weather. For storage harvest after 3 - 4 months.

<u>ORBS-UPON-THE-GREEN</u> – (Mushrooms/Toadstools/ringlets)

This refers to "fairy rings" that are circles of bright green grass among ordinary looking grass. They are caused by soil-inhabiting fungi that produce mushroom-like structures above ground. These produce spores that enrich the grass in a circular pattern. Throughout the ages fairy rings have been subject of superstition & folklore.

OXLIP - Primula elatior var. oxslip

Similar to cowslips, oxlips differ with one-sided flower clusters of paler yellow blooms that flare at the mouth. **Zones 4 – 8**; 6 - 9 inches. Best in partly sunny or shaded spots in average to poor, alkaline soil that drains well; tolerates clay. Start seed outdoors or divide mature plants in fall. Mulch with compost to retain soil moisture during dry spells. Attracts early butterflies & bees.

<u>PANSY</u> (aka <u>Cupid's Flower</u>; Western flower) – *Viola tricolor*. Wild pansy, heartsease, love-in-idleness, Johnny-jump-up.

Cupid's flowers are cool weather annuals, or short-lived perennials in warmer areas. **Zones 4 – 9**; 4 - 8 inches. Their fragrant, edible flowers appear in spring and early summer, and may repeat in fall. Start seed $(65 - 75^{\circ}F)$ indoors in late winter for spring planting. Best in part shade, especially in warm regions. Rich, friable soil is ideal; avoid over-feeding. Deadhead spent blooms; cut plants back if they become straggly. Excellent in containers & for cottage gardens.

<u>PEAS</u> (Peascod, Peasblossom, Squash) – *Pisum sativum* green peas

Annual peas grow on vines. **Zones 2 – 9;** 2 - 8 ft. The seeds (peas) are enclosed in edible or inedible pods, according to the variety. Soak dry seeds overnight, then sow 1-inch deep & 2-inches apart in rows 12 - 24 inches apart outdoors as soil becomes workable. Provide a sunny location with free-draining soil; amend with compost, wood ashes & bonemeal to improve fertility. Install supports (pea sticks) at planting time.

<u>PRIMROSE</u> – *Primula vulgaris* English primrose, common primrose

Early blooming spring primroses have pale yellow, salverform flowers on individual stems. **Zones 3 – 8**; 4 - 12 inches. Grow primroses in open woods or partly shaded spots where soil is rich & retains summer moisture. Divide mature plants in spring after bloom time or start seed indoors from January on. Sow seed very thinly, lightly cover with vermiculite; keep moist.

QUINCE - Cydonia oblonga

Growing on deciduous trees 12 – 15' tall, quince fruits thrive in full sun or part shade in fertile, acid soil that drains well. **Zones 5 – 8**. Plant young trees in early spring or fall. Showy pale pink blossoms appear in late spring on new growth. Irregular, apple-like fruits develop through the summer. Prune in late fall or winter during dormancy. The flowers & fruit grow on new young twigs. Pale green skin & white flesh (very hard) become bright pink when cooked.

<u>ROSE</u> (Red/Crimson) – Red-flowering *Rosa* species, hybrids & cultivars

Red roses signify love, respect & beauty. **Zones 3 – 8**. Roses require full sun with midday shade from intense heat. Plant in spring in well-drained, rich acid soil. Known for their prickly stems & faint to intensely fragrant blooms. Prune in early spring. Popular red/crimson cultivars (not around in the English Renaissance however) include miniature 'Red Beauty', tea rose 'Chrysler Imperial Rose', shrub rose 'Red Meidiland', hybrid perpetual rose 'American Beauty', disease resistant 'Super Hero'.

ROSE(S) – *Rosa* species, hybrids & cultivars

A huge group of deciduous shrubs from 1-ft. miniatures to 7-ft. tall damasks, of varying hardiness, roses mostly require full sun with midday shade from intense heat. **Zones 3 – 8**. Plant in spring in well-drained, rich acid soil. Known for their prickly stems & faint to intensely fragrant blooms. Prune in early spring.

<u>RUSH</u> – *Juncus*, common rushes. *Luzula*, woodrushes.

Mostly perennial plants with insignificant flowers, & cylindrical stalks, or hollow stem-like leaves. **Zones 3 – 8**; 6 – 48 inches. Tolerates soil moisture at the edges of ponds & bogs but can handle variable conditions. They prefer shade & infertile soils. Ancient civilizations used some *Juncus* species as remedies, & for nutrition from sprouts, shoots, & seeds.

<u>SQUASH</u> (PEA) – *Pisum sativum* green peas, peascod, peasblossom

Pease pudding made from annual peas that grow on vines. **Zones 2 – 9**; 2 - 8 ft. The seeds (edible peas) are enclosed in pods, edible or inedible according to variety. Find a sunny location with free-draining soil; add extra nutrients with compost, wood ashes & bonemeal. Soak seeds overnight; sow outdoors 1-inch deep & 2-inches apart in rows 12 - 24 inches apart in early spring, when soil becomes workable. Install pea sticks for vines at planting time.

<u>THISTLE</u> – *Onopordum* spp. Scotch thistle, cotton thistle

Biennial, thistles are deep rooted, with vicious spiny stems & lobed leaves covered with white "cotton". **Zones** 6 - 8; 6 - 10 ft. Their $\frac{1}{2} - 2$ -inch, light purple or white heads of summer flowers may be in clusters or carried singly. Start from seed in average soil in late spring. Windborne seeds can become invasive.

THORN/S

The sharp, pointy projections from the branch of a plant, the purpose of which is to protect the plant from being eaten by herbivores. They are extensions or modifications of leaves, roots, stems or buds. Thorny species often bear showy flowers or bright berries (blackberries/bramble), especially Roses (in Shakespeare).

<u>THYME</u> – *Thymus* spp. Wild thyme, common thyme

Evergreen wild thyme forms a low shrubby mound wiry stems bearing gray green, aromatic leaves, each about $\frac{1}{2}$ -inch long. **Zones 4 – 9**; 6 – 12 inches. From late spring on whorled clusters of tiny purplishpink flowers bloom at the stem tips & leaf axils. Increase by dividing mature clumps or start from seed in spring in well-drained average soil in sun or part shade.

<u>VIOLET</u> – *Viola odorata*. English violet, garden violet

Shakespeare is most probably referring to English violets. **Zones 6 – 8**; 6 - 8 inches tall. Sweetly scented, spurred blue or white flowers in late winter & early spring. Start seeds in spring in a partly shaded or woodland setting in moisture-retaining soil. Self-seeds freely. The violet clan has undergone extensive breeding over time to produce garden pansies & other beauties.

WHEAT – Triticum aestivum, common wheat, & other species

Types of annual grass, 2-4 ft. tall, grown for their high carbohydrate seeds (grain) consumed as a staple cereal & ground for flour worldwide. **Zones** 7-10. Threshing separates seeds from chaff. Thrives in full sun in average well-drained soil. Winter wheat is sown 6-8 weeks prior to the ground freezing; harvest the following summer. Sow spring wheat in early spring as soil becomes workable for mid-late summer harvest.

WOODBINE (see HONEYSUCKLE)

