

## STRAWBERRIES:

**JUNE BEARING** – produce very large fruits for about 'Honeoye' 2-3 weeks in early summer

**EVERBEARING** – produce 2-3 smaller yields of 'Fort Laramie', smaller sized fruit in spring, 'Ozark Beauty' summer, and fall.

**Planting:** Choose a moderate slope, avoid low spots where water stands. Slightly acidic sandy loam soil is ideal. Avoid heavy clay soil. Amend with green manure crop (rye, sweet clover, soybeans, etc. ), or well-composted stable manure. Plant in early spring through mid-June. Set the plants at soil level – only the base of the crown should be covered, else it will rot. Spread the roots out in the hole for maximum soil contact. Protect fresh seedlings against spring frost. June bearing plants are most often planted using the matted row system. Everbearing plants are often planted using the hill system, as less runners are put out by these varieties. In a **matted row system**, plants are treated as biennials. They are placed in rows placed 12-18" apart and at least 3' across, and runners are let go freely. In a **hill system**, the plants are treated as perennials, placed about 12-15" apart in rows 8" high and 12-24" across, with runners being cut off as soon as they form. They will continue to produce for 6 or more years.

**Watering:** Water is most important for success. Apply water about one inch of water every 10 days if rainfall is inadequate for runner development and plant growth during the growing season. Frequent irrigation of lesser amounts is best.

**Care:** Cultivate often, but shallowly, to keep weeds down and the soil in good condition. Mulch will keep weeds out and soil moisture in. 2-4" of winter mulch applied in late November will protect the strawberries from severe damage. Pinch all blossoms the first year from **JUNE BEARING** strawberries to make the plants strong and vigorous. Protect your plants against slugs, birds and other rodents. When harvesting, pick only ripe fruits, and leave a half-inch stem on each berry.

**Fertilizing:** Vigorous growth is important in the first growing season to produce max. fruiting next season.

- First growing season – For **JUNE BEARING**, use 1-2# of *Sustane 8-2-4* per 100' row to stimulate strong runner production. If using the hill system, apply 1 tsp / plant in early spring and again in early August. This will help produce many flower buds for the next season.
- First growing season – For **EVERBEARING** strawberries, apply 2 tsp. *Sustane 8-2-4* around

each plant about 3 weeks after planting and again in mid-July. **DON'T OVER FERTILIZE.**

- Bearing Year – Do NOT apply fertilizer during the spring of the fruiting year unless plants lack vigor – else poor fruit color and fruit rot may occur. If plants lack vigor, apply 1-2 # of *Sustane 8-2-4* per 100' of row immediately after blossoming.

## BLUEBERRIES:

**SMALL:** 1' -2' tall: 'Jelly Bean', 'Peach Sorbet'

**MEDIUM:** 3'-4' tall: 'Blueberry Glaze', 'Chippewa', 'Northblue', 'Northcountry', 'Northland',

**TALL:** 4'-6' tall: 'Bluecrop', 'Blueray', 'Patriot', 'Superior'

**Planting:** Ideally choose a site with full sun and a moist, well-drained, acidic soil, having a pH of 4.8-5. Consider a lab test of your soil. A pH-range of 4.2- 5.8 will be tolerated. Adding soil sulfur will lower the soil pH. Spring is the best time for planting. Generally, a spacing of 4-6' is sufficient. Set your plants at the same depth as they are in the container. Fill the hole with equal parts loamy soil and peat. Tamp firmly and water thoroughly. It may take 2-5 years to get larger harvests.

**Watering and Weed Control:** About 1" of water per week is needed. Drip irrigation works best, since sprinkling can lead to blossom blight and cracked fruit. A 2-3" thick layer of organic mulch will control weeds, keep moisture. It also eliminates the need for cultivation, which could damage the shallow roots. Aged sawdust, wood chips, pine straw or shredded leaves are excellent mulches.

**Fertilizing:** Apply periodic fertilizer, e.g. inorganic *Start-N-Grow 19-6-12*. In spring, when growth starts, spread 1 oz per plant evenly around the plant to about 12" out. Increase the amount annually. After 7 years you will be using about 1# for each plant. *Azalea Camellia Rhododendron Food 9-15-13* can also be used. This fertilizer contains micro nutrients. Apply in fall after the first hard frost. If you want to grow organic, use well composted manure or *Sustane 8 -2 -4*.

**Pruning:** To improve the quality of fruit, prune your blueberries when they are dormant, usually in early spring. Remove dead, diseased, old, or unproductive wood, as well as low or drooping branches. Thin out or shorten the remaining branches to remove some of the flower buds. Keep only 8-10 stems rising from the crowns. Remove all flower buds from young plants for the first two years – premature crops can stunt future growth.

Blueberries have few insect and disease problems. To protect against birds, cover the plants with netting.

The fruits are fully ripe when the pink ring at the base of the fruit has also turned blue.

## HONEYBERRIES / YEZBERRIES:

Use 'Sugar Mountain Blue' to pollinate 'Sugar Mountain Eisbaer', as well as 'Borealis' & 'Tundra'. Yezberries 'Solo' and 'Maxie' cross-pollinate each other.

**Planting:** Both types prefer full sun. They are soil and pH tolerant. Planting is the same as for blueberries. They can be set slightly deeper, in order to help establishing a deeper root system. Space 5 ft apart to give good air circulation and reduce occurrence of fungal diseases like 'powdery mildew'.

**Fertilizing:** Not much fertilizing is needed, as most soils can sustain the plants, but applying well composted manure every spring will benefit them.

**Pruning:** Like blueberries. Keep the plants thinned to allow air movement and access to light to help alleviate potential disease pathogens. Remove all flower buds in the first 2 years after planting.

## GRAPES:

'Beta' (wine), 'Bluebell', 'Somerset Seedless', 'St. Theresa', 'Valiant' (wine)

**Planting:** Grapes need full sun (6-8 hrs) and heat on southern slopes or south sides of buildings with good air circulation. They grow best in sandy loam that is well drained in at least the top 2', but the deeper the drainage the better. Early May is a good planting time. Set bareroot plant so that the lowest buds are 1-2" above the ground. Prune the vine back to three or four buds. If the soil has low organic matter content, the addition of some compost or aged manure can be mixed with the soil, but no other fertilization should be done until the shoots are about a foot long. Container grown vines should be set at the level at which they were growing in the container. Vigorous growth is important in the first growing season to produce maximum fruiting in the next season.

**Watering:** Keep newly planted vines moist the first year after planting. Thereafter, about 1" of water per week is sufficient. Drip irrigation is best as overhead irrigation may lead to foliar diseases.

**Fertilizing:** Apply 8 ounces of *Tree and Shrub Food 19-8-10* or *Sustane 8-2-4* per vine 7 days after planting a container grown plant, or after shoots are 12" long on bare root plants. From the third year following, apply 1.5 # of *Tree and Shrub Food 19-8-10* or *Sustane 8-2-4* in spring about a month before new growth begins. Keep the fertilizer approx. 6-12" away from the trunk and spread it evenly around it.

**Mulching:** Avoid mulch, as heat is needed for growth. Instead use tillage or black plastic mulch to control weeds.

**Pruning:** There exist many training systems, but the following important principles have always to be considered. Grape clusters are potentially produced opposite the third to fifth leaves on the current year's shoots, which are produced from an overwintered bud on the previous season's wood. Also, a mature grapevine will produce an over-abundance of buds, which, if left, will give rise to a lot of leaves and little fruit. One has to remove the excess buds in the dormant season. Leave 40-60 buds for fresh, juice, jelly production. Leave 20-30 buds for wine-making. A popular method is to leave four eight-bud canes. The next year's fruit crop will originate from the eight bud canes and the following year's canes will originate from the two-bud spurs.

**Winter Protection:** Vines sensitive to cold can be grown successfully, if they are pinned to the ground and covered with soil or plant material (straw, etc.) in the winter. Plant the vine at a 45 degree angle and train the young shoot horizontally by pinning it for a foot or more and then curving it gradually upward.

## RHUBARB:

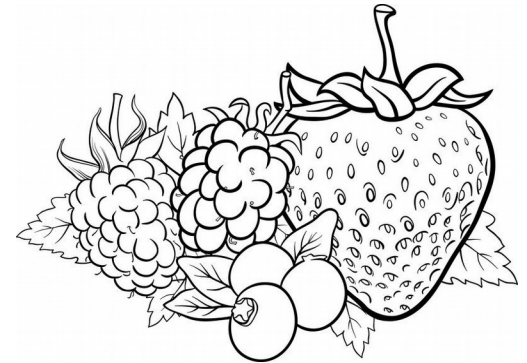
**Planting:** Rhubarb is very easy to grow. Select a site in full sun with rich, well-drained soil high in organic matter. Raised beds work well and will help prevent crown rot. Prepare the planting site in fall by eliminating perennial weeds, and working in manure or compost. Incorporate fertilizer *Start-N-Grow 19-6-12* or *Sustane 8-2-4* in spring just before planting. Plant the crowns of the plant 3 feet apart and keep the buds are about 2" below the soil surface. Don't harvest any stalks the first year. Wait 2-3 years so that the plants can establish themselves. Fertilize in spring after the growth starts, and again in summer after harvest.. Remove flower stalks when they first appear to keep leaves growing strongly. Keep grass and weeds away from rhubarb. Mulch plants in winter after the ground freezes to prevent frost heaving. Divide plants every 4- 5 years to keep them vigorous.

## RASPBERRIES:

- **SUMMER BEARING** – Current year's canes will produce fruit the following year. Fruit ripens in early summer. 'Boyne', 'Bristol Black', 'Killarney', 'Royalty', 'Short Cake'
- **FALL BEARING** – Produce fruit on current year's canes. Fruit ripens in late summer and early fall. 'Autumn Britten', 'Caroline', 'Fallgold', 'Heritage'

# Growing Guide for Small Fruits

2020 revised version



**Planting:** Raspberries prefer full sun and well drained, slightly acidic to neutral sandy loam with good organic content. Align rows in a north-south direction to ensure a maximum of light. Plant in early to mid spring, on a site with good air circulation, but avoid strong winds. Amend with compost or aged manure. Set plants 12-18" apart in the row; 6' between rows. Production usually starts the following year after planting. Trellising can be used to keep fruit from touching the ground and to prevent cane breakage from wind or heavy fruit load.

**Watering:** Raspberries need 1-2" of water per week, especially during the most active growing time.

**Care:** Weed control is a must for the first few years. Give summer bearers a layer of good organic mulch. But mulching fall bearers may delay the crop and is not recommended for northern areas. To minimize fungal disease, spray the plants with fungicide in spring, just before the buds open.

**Pruning:** All fall bearers should be cut completely to the ground in late winter or early spring. Prune summer bearers by removing the 2-year old canes at ground level after harvest. Cut off all but three or four of the green, succulent new canes. Remove all debris, as insect pests and diseases can overwinter.

## **Fertilizing:**

**Organic:** Apply 25# of compost or aged manure per 100' of row in early winter as a 2" top dressing. Alternatively, use 1-2# of *Sustane 8-2-4* per 100' of row. Keep organic fertilizers from piling up around stems.

**Inorganic:** Spread 5# of *Tree and Shrub Food 19-8-10* per 100' of row on top of soil in late winter or early spring. Additionally, for fall bearers, at bloom time, apply 2# of *Sustane 8-2-4* per 100' of row.

## **ASPARAGUS:**

'Jersey Knight', 'Sweet Purple'

**Planting:** Work the soil to a foot deep, or more, and mix in large amounts of aged manure, compost, or similar organic material, as well as 4-5 # of *Tree and Shrub Food 19-8-10* or *Sustane 8-2-4* per 100 sq ft. Dig trenches 8" deep and 4-5' apart. Spread some compost or manure in the bottom of the trench and cover with an inch of garden soil. Set the crowns 18" apart in a row and cover with 2" of soil. As the new shoots come up, gradually fill the trench by adding another 2" of soil. Water a lot when growth develops.

**Fertilizing:** Follow a twice a year feeding program – one in spring before growth starts, and the second as soon as harvest is finished. *Sustane 8-2-4* works well.

**Harvesting:** Let the plants grow strong for 1 year. Begin harvesting in the second year, when the stalks are large and abundant. The plants mature after 3 years. Cut or snap off spears when they are 6-8" high. Bend the spear over sharply until it breaks. This avoids injury to other shoots below ground. Let the plants grow out at the end of the growing season. Cut all down to the ground when all have totally died back.

## **OTHER SMALL FRUITS:**

**Black and Red Currant:** ripens in mid-summer, is high in vitamin C, for fresh eating, jams, juice, wine or liqueurs. The self-fertile bush prefers cool summer climates with full sun, and need regular watering. Plant them in humus-rich, moist, well-drained soil. They are not particular as to soil type or pH. Mulch to protect the root zone against harsh winter winds. Prune in late winter or early spring. For best fruit production, allow 4-5 new canes to develop yearly, up to a number of 16. Prune 3 year-old canes to the ground yearly.

### **Blackberries:**

'Darrow' (erect), 'Chester Thornless' (Semi-erect)  
Both may require trellising.

Treat blackberries like summer bearing raspberries.

**Chokeberries (native):** Black Aronia berries are high in antioxidants and used for baking, jams, jellies, syrup, tea, juice and wine. Plant these hardy, easy-to-grow bushes in full sun. Because of the suckering tendency, and the tolerance to a variety of soil conditions, they are typically used in mass plantings, naturalized or woodland gardens, or for erosion control, windbreaks and wet soils.

**Elderberries (native):** Elderberries have a high amount of antioxidants and are known for giving relief to sinusitis, cold, and flu. They can be baked, canned or juiced. The bushes prefer partial shade and moist, well-drained, pH neutral soil. Plant them in pairs after the last spring frost, no more than 60 feet apart, for the full benefit of cross pollination. Since they can grow up to 12 feet tall and six feet across, mature bushes will need lots of room to thrive. Once they are established, they are very easy to maintain.

**Goji Berries:** These reddish-orange fruits, also known as wolfberries, have a sweet-sour flavor, plenty of antioxidants, vitamin A+C, and proteins. They can be eaten fresh, dried, or made into juice, jams, wine and tea. The self-pollinating bush is easy to grow and will reward you with loads of nutritious berries from

summer to the frost. It prefers full sun and well-drained soil. Amend the soil with organic compost and fertilizers. Space the plants 4-5' apart. Once established, it is quite drought-tolerant.

**Gooseberries:** have a sweet, kiwi-like flavor. Good for fresh eating, pies or jams. They ripen in July, and even young bushes are heavy producers. The self-fertile bush needs protection from the late spring frosts. It easily grows in full sun, in moist and well-drained soil. Space 4-6' apart, water regularly, and fertilize periodically with compost or organic fertilizers.

**Horseradish:** Best grown as an annual or biannual in full sun. Plant trimmed short sections of the root, 4-6 weeks before the last spring-frost, in rich, well-drained and pH-neutral soil. Prepare ground to a depth of about a foot, amend with organic compost, and set the root section in a 3-4" deep trench (space 2-3'). Refill, keep it moist and fertilize with compost every month. Regularly prune away side shoots around the root 3-4" with a spade. You can start harvesting 5 months after planting. Professional growers let the roots stay in the ground 12-18 months. Earlier harvest results in a lower yield, later harvest makes them more tough and fibrous, with less flavor. Harvest when the soil is dry, and do not wash the roots. Store in the fridge or in the root cellar for months. If you want 2 harvests per year you can plant new cuttings in spring as well as in fall.

**Lingonberries:** ripen in mid-summer, are slightly tart and high in vitamin C. Use for sauces, jellies, chutney, or wines. The small, creeping shrubs are Zone-2-hardy. Choose sites in full sun or partial shade with moist, well drained, acidic soil. Grow them individually, in rows, or as ground cover. The plants are self-pollinating, but cross-pollination will produce larger fruits that ripen earlier.

**Serviceberry (native):** Also called Juneberry or Saskatoon. Easy-to-grow and zone-2-hardy. Black fruit ripens end of spring. For fresh eating, jams, jellies and pies. For fruit production grow in full sun. It prefers moist, well-drained, pH-neutral, loamy soils, but tolerates sand and clay. Use as specimen, or in group plantings as borders, backdrops and screens.

**Yellow Flowering Currant (native):** Glossy, amber-yellow to black berries ripen in mid to late summer. For raw eating, juices, jams, jellies, tarts or pies. Once established, this shrub needs no special care. Grows best in areas with more ground water, partial shade and when surrounded by mulch. It also grows well under oak trees and in mixed chaparral. When it's thriving, it self-seeds, spreads out from the original plant, and can serve as a ground cover.

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