



Indiana Berry & Plant Co.

2811 Michigan Road
Plymouth, IN 46563

Planting Guide Growing Instructions

Plants are dormant when they are shipped and usually have no leaves. Try to plant as soon as possible. Check your plants immediately and contact us if there are any problems. Asparagus and rhubarb may have surface mold. This is normal and is not a problem as long as the roots are still firm.

****IMPORTANT UPON ARRIVAL****

Open the box, unwrap the plastic, check the contents and place the box in a cool location, out of direct sunlight (e.g. in a garage or back porch). If you plan to plant within 7-10 days, you can keep the plants in the box in a cool dark place. Do not put the plants in a food freezer as these are much colder than our plant freezers (32 F). Plants will keep up to 4 weeks if kept at 35 degrees. Surface mold may appear but this will not harm the plants. Check moisture levels of the roots frequently. If the roots are dry, you will need to mist them but be careful not to overwater them, as this can lead to mold problems. Do not moisten asparagus.

Your local extension office knows your area better than anyone and may be able to recommend publications and provide valuable information.

Company Guarantee

Indiana Berry & Plant Co. guarantees that you will receive top quality products and plants, true-to-name, disease free and vigorous in growth when reasonable and proper care is given. If for any reason you are not satisfied notify us within 60 days after shipment. Shipping charges may apply on replacement orders. This guarantee does NOT cover plants shipped outside the recommended planting times or delays in planting due to inclement weather.

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Strawberries

Plant Spacing :

June Bearing—18" - 24" apart

Everbearing—6" apart

Cultivate the soil several time 2 weeks prior to planting to eliminate weeds. Each time you do this you will eliminate many freshly germinated weeds.

Plan on planting when weather is cloudy and cool to prevent roots from drying out.

Remove most of the old leaves from each plant. Use a trowel to make a hole by pressing it back and tipping to both sides. Spread the roots carefully and firm the soil around the roots. Set the plants at the correct depth. Do not trim roots and do not bend roots to fit into he hole. The base of the crown should be at the level of the soil surface. Plants too deep will smother and die; plants too high will dry out.

Spread the roots and carefully firm the soil around the roots leaving no air pockets. If soil is dry, pour a pint of water around each plant. **DO NOT FERTILIZE AT TIME OF PLANTING.** You should see new green growth in 7-10 days.

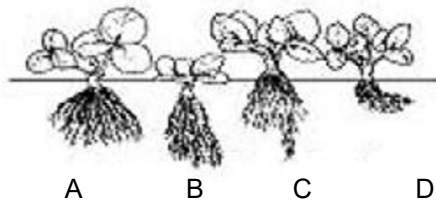
June Bearers—remove flowers the first year to eliminate fruiting. This will encourage more runners the first year.

EverBearers—remove only the first set of flowers. Place straw around the plants to provide a bed for the fruit to lie on. Can also be grown in hanging baskets as fruit will form on unrooted runners.

Once runners begin to form make sure the new plant on the end is kept in contact with the soil in order for roots to grow. Place the new plants that form approximately 6" apart in the rows. Crowding will produce small fruit so do not allow your planting to overpopulate and form a solid bed. In the fall, mulch with straw after the third evening of hard frost or freeze.

Proper planting method (A) and improper methods (B, C, D) for strawberry planting.

At B the crown is too deep, at C the crown is too high and at D the roots are bent and remain near the surface. The time taken to get the roots all covered is critical. Plants will not live with roots exposed.



For more information on growing your new strawberry plants refer to your Indiana Berry Book and Plant Guide or visit our website at www.indianaberry.com

Currants & Gooseberries

Plant Spacing—4' apart

Currants and gooseberries are hardy and easy to grow. A few plants will produce enough fruit for typical family use and this fruit is much prized for making jellies and pies. Currants are especially outstanding for jellies, while gooseberries are excellent for pies or preserves.

Currants and gooseberries prefer a cool climate and a rich, moist, well-drained soil high in organic matter. Silt and clay loams are best; however, plants should do well on fertile sandy loams. Light, sandy soils that tend to become hot and dry during the summer, or land where water stands at any time during the year should be avoided. Because both currants and gooseberries blossom very early in the spring, they should not be planted on low lands or in pockets where late spring frost may injure blossoms.

The fruit of the gooseberry often scalds badly in hot weather, especially when exposed to direct sun. In zone 6 gooseberries thrive best when planted on a northern exposure where they will be shaded part of the day. Gooseberries are subject to mildew therefore they should be planted where there is good air circulation. On sloping ground gooseberries should be planted high on the slope.

Set the plants as early as possible in the spring. Space plants 4-5 feet apart in each direction. Remove all damaged or broken roots before planting and cut the tops back to 6-10 inches above the ground. Set bare root plants deep enough so the lowest branch will be just below the soil surface. This is to develop a bush form. Spread the roots well and compact moist top soil firmly around them. Make sure no fresh manure or commercial fertilizer comes into contact with the roots. You should see new green growth in 2-3 weeks.

Apply a 6" layer of mulch of straw, grass clippings, sawdust or peat to control weed growth and maintain moisture. Apply a balanced fertilizer (10-10-10) annually either in the fall after growth stops or early spring before growth begins.

At the end of the first season remove all but 6 or 8 of the most vigorous shoots. At the end of the second season leave 4 or 5 one year old shoots and 3 or 4 two year canes. At the end of the third year, keep 3 or 4 canes each of 1, 2 and 3 yr old wood. This will make a total of 9-12 canes on each plant. Canes 4 yrs and older produce very little fruit. Pruning mature plants, therefore, should consist of thinning out the old canes and the weakest of the young canes.

If you would like more information on growing Currants and Gooseberries we offer the Currants and Gooseberries Culture Guide (Catalog #25) for \$15.00.

Blueberries

Plant Spacing—6' - 8' apart

Test soil pH prior to planting. Ideal range is 4.5—5.5. Add lime if pH is below 4.5 and add sulfur if pH is above 5.5.

Remove any damaged branches at time of planting. Set plants at the same depth as grown in the nursery. Mix a shovelful of acid peat with the soil in each planting hole when planting in sandy soils low in organic matter. Remove fruit buds either before or soon after planting since fruiting the first year may stunt bush. After you put the plants in the hole fill it 3/4 full of soil and flood with water. After the water has seeped out, fill the remainder of the hole and pack firmly. Water the plant thoroughly with a starter solution to encourage rapid growth. You should see new green growth within 3 weeks.

Blueberries are very shallow rooted so take care when cultivating. This shallow root system makes the plant susceptible to drought stress under poor soil conditions. In determining whether or not to water try squeezing a soil sample in the palm of your hand. If the ball formed is weak and easily broken, soil moisture is adequate. If not easily broken, the soil is too wet. If no ball is formed, then too dry.

Fertilize your plants about a month after planting. Apply about 1/2 cup of 5-10-10 or 10-10-10 fertilizer per bush. Spread the fertilizer around the plant in a broad band at least 6" but not more than 12" from the base. Repeat the application in early July. If the plants show low vigor, fertilize again in the fall when the leaves drop.

Prune January through Mid March to remove dead and injured branches, fruiting branches too close to the ground, spindly branches and old stems no longer producing.

Asparagus

Asparagus should be planted as soon as possible in the spring.

Dig a trench 12—18 inches wide. Make the trench a minimum of 6" deep, depending on whether you are going to add compost material. If adding compost, make the trench 8-10 inches deep. Add enough compost material so that after it is firmed down the trench is 6" deep. Add 1/2 pound of 10-10-10 fertilizer to each 10 foot stretch of trench. Place the crowns **9-12 inches apart with the roots spread out uniformly and the crown in an upright, centered position.** Cover with 2" of soil. As the tips begin growing, gradually add more soil to the trench until the trench is full. This process takes approximately 6 weeks.

Do not harvest any spears the first year. A light harvest can be taken the second year after planting. Spears are ready for harvest when the stems are about 8" tall and 1/2" or greater in diameter.

Spears can be either snapped or cut, either way is acceptable. To snap a spear, bend it from the top toward the ground. The spear will snap where it is fiber-free. To cut a spear, run a knife under the ground where the spear has emerged.

A light application of 5-10-5 or 10-10-10 fertilizer immediately after harvest and again in mid-July and mid-August helps ensure a productive bed next year.

Weeds and grasses are the worst problem that you will encounter. Frequent shallow light cultivation will help control this and help your patch maintain its maximum yield. We recommend leaving the ferns overwinter and removing them in the early spring. A well maintained planting will produce for up to 15 years.

DO NOT USE SALT as a weed killer. It does not harm the asparagus but inhibits water penetration in soil. The salt can leach out when it rains and damage other plants.

Rhubarb

Rhubarb roots should be planted in early spring. Ideally your soil should have low compost percentage and be well drained in order to avoid rot. **Set rows 5-6 feet apart and 3 feet apart within the row.** Do not bury the entire "plant" under the soil. This means that 1/4 to 1/3 of the "plant" will be above ground level. If the bud itself is below the soil line it may rot off and fail to grow. It is better to plant too shallow than too deep. You should see new green growth in about 2 weeks.

Do not pick stalks during the first year of growth. This allows the plant to strengthen itself. A light picking may be taken during the second year of growth. The following years picking will be much better.

To harvest, pull the stalks from the plant and discard the leaves. The leaves contain a high amount of oxalic acid which will irritate the mouth and should not be eaten.

If seedstalks appear during the spring and summer, cut them off at the base and discard. Maximum quality leafstalks are obtained in early spring when they are crisp and fairly thick.

An application of manure or mulch is beneficial in late fall or early winter but do not cover the crowns with a deep layer.

Horseradish

Although horseradish is a perennial, older plants do not have as much flavor as younger ones. You may want to divide and replant often for maximum flavor. A mature plant will grow to be 24" tall and 18" wide.

Dig a hole 1 foot across and as deep as your shovel. Loosen the soil in the bottom of the hole. Place root horizontally in the hole at a slight angle approximately 1" below the soil level. Press soil firmly around the roots. You may fertilize with a balanced or low nitrogen fertilizer 2-3 times per year.

Hops Rhizomes

Before planting hops you will need to spend some time planning the layout of your hop yard. Keep in mind that hop plants will grow 15 to 20 feet high. Make sure you choose an area in full sun, with well drained soil with sufficient vertical space with some wind protection. **Plant hills should be 2 to 3 feet apart with 8 feet between rows.**

Loosen well worked soil about a square foot for each hill, place rhizomes in the ground two per hill make sure the buds face upwards, cover with a couple of inches of dirt, tamp down soil gently but firmly. Water after planting enough to moisten the ground but, not saturated. Over watering can cause the roots to rot, you can cover with a layer of straw or composted bark.

Sea Buckthorn

Dig a hole in a sunny location as deep and wide as needed to accommodate the root. Trim off any damaged or broken roots and branches prior to planting. Press soil firmly around roots and water thoroughly.

A Sea Buckthorn grows from 6-10' tall with a narrow upright growth habit. Space **7' apart or 3-5' for a hedge.** It is extremely hardy, to -50 F. It is disease resistant and easy to grow. Plentiful round yellow orange fruits cover the female plants making them beautiful edible ornamentals. Branches are used in florist displays. The juice is sour and has an orange passionfruit like flavor when sweetened. Blended with other fruits, or by itself, it makes a delicious juice.

Sea buckthorn can tolerate a little drought but it is a moisture sensitive plant especially in the spring when plants are flowering and young fruits are beginning to develop. If planting in arid or semi-arid areas, water must be supplied for establishment.

Grapes

Plant Spacing—8'-10' apart

Prune off any broken and damaged roots and shorten excessively long roots for convenience when planting. Excessive pruning of the root system is not advised however it is better to prune a few roots than stuff the roots into a small planting hole. We recommend soaking the plants in water for several hours prior to planting, but no longer than 24 hours.

The planting hole should be large enough to accommodate the root system with ease. Spread the roots, cover with soil and tamp well. If soil moisture is low, water the plants in after planting and as needed until the plants have developed a root system large enough to support themselves during dry periods. Own-rooted plants should be set to a depth where the lowest shoot of the dormant plant is just above the soil level. For grafted vines, the graft union should be at least 2 to 3 inches above the soil level to prevent scion rooting.

It is not unusual for buds to break dormancy during storage in the cooler or during transit. When exposed to sunlight this growth will turn brown and fall off. This is not cause for alarm as more buds will develop and grow. Grapes need approximately 2 weeks of 70 degree air temperature in order to break dormancy and grow. Please be patient.

It is important to properly train vines during the first few years of growth to establish a vine form that will be easy to manage. **After planting, but before growth begins, the top of the dormant plant should be pruned back to a single cane with two to five buds.** After growth starts all but the best two to four shoots should be removed. One or more of these shoots will become the trunks. Support should be provided for new shoots to keep them off the ground. This will greatly reduce disease problems and provide full sun exposure for maximum growth. The trellis should be established soon after planting to provide this support. String can be tied from a side shoot of the vine to the wires and the new shoots wrapped around the string. Never tie around the main trunk of the plant because the trunk will expand during the first growing season and can be girdled by the string. We do not recommend fertilizer the first year of planting.

Honeyberries

Plant Spacing—4' - 5' apart

Two varieties of similar bloom period are needed for pollination.

Honeyberries can be planted in most soils with a wide range of pH levels(5-8 is preferred) plants may perform better in clay soils than sandy soils and can grow in sunny or shady locations. Honeyberries seem to bear best in sun in the North, needs some protection from sun in the South . The planting hole should be large enough to accommodate the root system with ease. Spread the roots, cover with soil and tamp well. Water plants thoroughly. Honeyberries have a shallow root system so they can dry out quickly. Make sure to keep them watered during dry conditions.

Brambles

Florocane—produce fruit on previous year's growth
Primocane—produce fruit on current year's growth



Raspberry—Dig holes deep enough to set plants 1" deeper than they were in the nursery. You can determine this by the dark brown color line on the cane. Press dirt firmly around the roots to prevent air pockets.

Summer Red—Florocane—cut cane off at ground level at time of planting. Canes that bear fruit will die the next year and must be pruned back to the ground each spring. Plant 1'-2' apart.

Black & Purple—Florocane—cut cane off at ground level at time of planting. Prune off the top 3"-4" of the new shoots when they are about 24" high for black and 30" for purple. This topping should be done several times during the season. Remove the fruiting canes immediately after harvest. Carry from the field and burn to minimize disease problems. Plant 24" - 30" apart.

Fall Red—Primocane— cut cane off at ground level at time of planting. Entire planting is cut back at ground level each fall or winter after plants are completely dormant and before any growth starts in the spring. Allow plants to sucker and keep rows about 18" wide. Plant 2' - 3' apart.

Blackberry—dig a trench deep enough to cover the roots and shallow enough to allow the suckers to easily come up through the covering soil. Gently divide the roots evenly in half and lay down in opposite directions with the cane in the center and upright. Cut the canes back to ground level.

Primocane blackberry care is the same as raspberry primocane care above.

Trailing varieties require trellising. Plant 6'-10' apart.
Erect varieties should be tipped like black & purple raspberries. Plant 3' apart.

It is not unusual for blackberries to take up to 45 days to break dormancy.
Please be patient!

Special Note

Take special care during planting to protect blackberry roots from sunlight. For some reason their roots are very sensitive to sunlight and will often suffer high transplant loss if planted on a bright sunny day. Even when planting on a cloudy day, it is wise to keep their roots in the dark.

Remove blossoms the first year to prevent fruit production. This allows the plant to use resources for good root development.

Tissue Culture Plant Care—Be sure to cover the entire root mass with your native soil. Leave only the stem poking through the soil surface. If no stem is present, position the stub just slightly below soil surface. Keep the soil moist until plants become established.

Tissue Culture plants are considered the most disease-free and vigorous planting stock available and usually cost much more than bare root plants. By the time these plants reach you the tops may be small or even non-existent but the roots are strong and healthy. New growth will sprout from the roots within a few weeks and by the end of the summer these plants should produce abundant, vigorous canes. These plants are covered by our same 100% guarantee. Please give them a chance.

Elderberry

Plant Spacing—5'- 6' apart

Plant elderberries in spring, as soon as possible after they arrive from the nursery to prevent plants from drying out. Dig a hole as deep and wide as needed to accommodate the root and if possible, incorporate compost. Trim off any damaged or broken roots prior to planting. Space plants 6 to 10 feet apart. Elderberries are shallow rooted, so keep them well-watered during the first season.

Elderberries respond well to fertilization. In addition to incorporating manure or compost before planting, apply additional fertilizer annually in early spring. Apply 1/2 lb. 10-10-10 for each year of the plant's age, up to 4 lbs. per plant.

Elderberries send up many new canes each year. The canes usually reach full height in one season and develop lateral branches in the second. Flowers and fruit develop on the tips of the current season's growth, often on the new canes but especially on laterals. Second-year elderberry canes with good lateral development are the most fruitful. In the third or fourth year, older wood tends to lose vigor and become weak. In late winter to early spring while the plants are dormant, remove all dead, broken or weak canes, plus all canes more than three years old. Leave an equal number of one, two, and three-year-old canes.

Potted Plants

Cranberry—1' apart

Kiwi - 10' apart

Goji Berry—4'-8' apart

PawPaw—8' apart

Dig a hole approximately 12" wide and 6" deep. Remove the plant from the container by turning it over and tapping the bottom. Place the plant in the hole, fill with soil and water thoroughly. The top of the potted portion of the plant should be slightly lower than the top of the hole. Be sure that the potted plant is completely covered with your native soil or it may act like a wick and cause the roots to dry out.

Thank you for choosing your plants from Indiana Berry & Plant Co. If you are unsatisfied for any reason, please call so we can correct the problem as soon as possible. If you are delighted with the quality and condition of your plants and your excellent customer service, please tell your friends. For more information on growing and care of your plants check our website under "Helpful Info" where you will find videos and educational links. You will also find detailed information in the Indiana Berry Catalog & Plant Guide. We also offer several gardening books for purchase as well. If you still