



Call to find out more about our nursery trees, bushes and supplies.

(701) 426-9707 or (701) 426-7668

What bushes produce the best color leaves & or flowers?

There are many trees & bushes that flower every spring filling your yard with beautiful blooming colors from white, yellow, pink, red & blue. The most popular shelterbelt bush is the Purple Lilac because it's very hardy, provides great wind protection & fills your yard every spring with beautiful blue and/or white colors that smell wonderful (see pictures in bush varieties section). The second most popular bush is the Amur Maple because it produces a very small fragrant white flower in the spring that smells like honeysuckle & produces beautiful leaf colors from yellow, red, pink, orange and/or purple in the fall. If you like the color red, try the Canada Red or Schubert Chokecherry which starts off with green leaves that turn and stay red all season. I planted all three in my yard because I like a variety of colors all season. If you want flowers & fruit, the most popular bushes are Chokecherry, Juneberry or Serviceberry and American Plum. Call our helpline at 701-426-9707 for free advice on what would work best in your yard.

What trees provide the best variety of color leaves?

Each tree has its own variety of colors and flowers almost too many to mention. Some of the most popular trees are Autumn Blaze Maples that turn flame colors of red, orange and yellow. There is the beautiful Red Oak, Aspen, Birch, Amur Maple, Red Chokecherry and Manchurian Ash also. Look at our web site as to what each variety of tree and bush looks like in the spring, summer and fall. We tried to show colors of leaves and flowers on each variety. We also have posted fall pictures of shelterbelts so you can get a feel for what they will look like when they mature. Call our helpline at 701-426-9707 for advice on what would work best in your yard.

What trees provide the best colored flowers?

The most popular flowering fruit trees are Apple, Cherry, Plum and Chokecherry. There are other flowering trees that produce either seeds or fruit so it's important to have an idea of what you want in your yard. Fruit not only tastes great, but helps wildlife. The fruit is available fall and winter providing low cost food for the family and wildlife for months. The best tasting apple tree in my opinion is the Honeycrisp which is crisp, sweet and stores well for a long time; up to 4-6 months in the fridge saving lots of money as the apples can sell for over \$4 a pound and each tree can produce hundreds of apples every season. Call our helpline at 701-426-9707 if you have questions on what might work best on your yard.

What are some of the fastest growing trees?

Some of the fastest growing trees we sell are the Cottonwood, Popular, Silver Maple, Amur Maple, and/or Aspen trees. These trees can grow 3-6 feet a year if provided adequate water and fertilizers. The fastest growing evergreens are the Scotch Pines. I have some Scotch Pines in my yard that have

The Institute of Life serves the people of Central and Western North Dakota including the communities of Bismarck, Mandan, Steele, Minot, Dickinson, Williston, Harvey, Carrington, Jamestown, Center, Moffit, Baldwin, and Linton. Call to find out more about our nursery trees, bushes and supplies.

grown up to 28 inches each year. I like to start with larger bareroot trees and use low cost drip irrigation and 10-10-10 fertilizers, Gypsum and Ironite to promote fastest growth and nutrients the trees need to grow best. Have your soils tested by NDSU to know for sure what your soils need for the trees you are growing. This way you don't have to wait a lifetime for big trees to surround your yard. Call our helpline at 701-426-9707 if you have questions on what trees would work best in your yard.

How many trees and bushes do I need for my shelterbelt?

Depending on the number of rows of trees you want or need, most people plant three rows; two rows of trees and one row of bushes, but you can plant as many rows as you want! The more rows... the better wind protection. My yard has two acres and I planted 6 rows; three trees and two rows of evergreens. I, now, have over 50 varieties of trees and bushes over 14 years because it's fun to add a lot of new colors and varieties every season. I have lots of colors, sizes and shapes that change colors every season. The more trees and bushes you plant, the less area for grass to grow and mow. If you don't like leaves, you should plant more evergreens. If you like more colored leaves, you should plant more trees. The more rows planted means more protection for your home from the wind, snow and storms. The more varieties of trees planted will provide more color, fruit, beauty and protection for your yard. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

How long does the shelterbelt need to be to protect my home?

Example: a 400 foot row divided by 6 = 67 bushes; add one extra or 69 so you have enough bushes to cover the whole row. Plant bushes 6 feet apart. Example: if you step off the row for your bushes, every two steps or 6 feet plant a bush; every four steps of 12 feet plant a tree...Divide the distance by 6 feet for bushes and 12 feet for trees; add one as you need to start each row with one tree or bush. Example: for a 2 acre shelterbelt take distance 800 feet divide by 12 = 80 trees or by 6 = 160 bushes per row. Tree rows on the outside are longer than inside rows so add trees to the outside and order less for the inside rows. It's best to walk off each row so you know exactly how many you need. Each variety of tree and or bush have different space needs so call our help line 701-426-9707 if you have questions on how many trees or bushes you will need to buy.

How much space do I need between each row of trees?

As a general rule, it's important to have 8-12 feet between each row of trees and/or bushes. Larger faster growing varieties of trees will need more space. Remember to keep enough space so you have room to move equipment like mowers or tillers even after the trees get big. Just call our help line at 701-426-9707 if you have questions on how much space you need between rows of trees and bushes.

How much will my shelterbelt cost?

Each row of 3-4 foot high trees or bushes spaced every 12 feet will cost on average approximately \$400 per row. Larger trees will average just \$2 dollars more per tree; shorter trees will average \$1 less per foot per tree. If you start with larger trees it will take less time to have a more mature shelterbelt. Don't wait a lifetime for big trees! For just a few dollars more, you start your shelterbelt with bigger trees the first year. If cost is an issue, start your shelterbelt with one row of trees per year or start with smaller trees. Call our help line at 701-426-9707 if you have questions on how to reduce the costs of your shelterbelt.

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How do I dig the holes for my trees?

Before digging any hole, call the 811 help line to make sure all power and gas lines are well marked before you dig. The fastest way to dig a lot of holes is to rent a 12-24 inch post-hole digger from a rental place or use a post-hole digger on a Bobcat to drill your holes. Depending on how fast you can work, it can take just one day to dig all the tree holes for under \$100. Its best to dig holes deeper than is needed so if you want to widen the holes the extra dirt can fall in the holes. Each hole should be about 2-4 foot deep depending on the size of the tree you are planting and size of the hole you need. I rented an 18 inch post-hole digger and dug the holes 3-4 feet deep. Then, I used a shovel and widened each hole to 2-3 foot wide by cutting the side of the holes with the spade. This way the sides of the hole are not so smooth from the digger so the roots can penetrate and grow faster. The day before planting it's a good idea to fill the holes with water so the soil is moist around the roots when planting. This way the dirt around the trees does not rob the roots of moisture. Call our helpline at 701-426-9707 if you have questions on digging tree holes.

What's the best way to store bareroot trees before planting?

It's important to take great care when planting bareroot trees. Bareroots are very susceptible to hot and freezing temperatures, dry and windy conditions. Most roots are surrounded by dirt all the time which keeps them cool and wet all the time. Keep trees in wet wood mulch to keep them moist and store trees inside a cool garage out of the sun. Cover windows so the room stays cool and dark until they are planted. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

What's the best time to plant trees?

The best time to plant trees is the first week of May or after the buds start to break open. This way allows more time to plant by selecting the varieties that break buds first. Place your tree roots in a 5 gallon bucket of water for 1-2 hours before you plant so the roots are well hydrated. Wrap the roots in wet wood or paper mulch so the roots stay cool and wet while you plant them. Keep roots cool and wet until they are covered with dirt. Its best to take just a few trees at a time so they will not spend too much time outside exposed to hot or cold temperatures. I planted most of my trees in the morning and evening when it was cooler and there was less sun. Best to plant when its cloudy, wet, cool and not much wind. If not, keep roots wet in water while you plant to keep them protected. Call our help line at 701-426-9707 if you have questions on planting.

Each bare root has had a portion of its roots cut off when it's dug up. These larger cut roots need to have the very tip of the root sliced off to allow them to grow and absorb more water. Similar to cutting the base off a Christmas tree so it starts to absorb water again. All you need to do it take a sharp knife and slice the end of the cut root so it's a fresh cut. Now it's ready to plant. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

What is the fastest & easiest way to water a lot of trees?

Most smaller trees take about 3-5 gallons of water per week to keep them growing. I started using a five gallon bucket to hand water trees but with 500 trees I learned fast it can take a whole day/week to water the tress. Hand watering trees can take an hour for every 20 trees and wastes a lot of water between trees as you want around with the hoses. Avoid spending a lot of time and money watering trees by using low cost ¾ inch irrigation tubing and 1 gallon per hour drip inserts. Tubing costs as little \$70/400 feet or \$1.80 per tree and drip inserts cost as little as 20 cents each so it can cost as little as

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\$2/tree or \$1 per bush to install drip inserts and tubing on all the trees. Takes just 3 hours to water up to 300 trees. Saving 1000 hours of your time and hundreds of dollars in lower watering costs. A cheap investment that will pay for itself in the first year. I used ¾ inch blue line irrigation tubing from Menards and drip inserts from Strong Enterprises. Prices and stores change all the time so just go online to search for the lowest cost drip inserts and tubing. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

What is the best way to keep weeds out of my trees and bushes?

The best way to protect your trees from weeds and keep them moist and looking great is to use long lasting tree protecting fabric. Tree fabric from *Institute of Health LLC* keeps weeds away from the trees allowing more moisture for them to grow. A 500 foot long roll of fabric costs around 60 cents a foot for a 6 foot wide roll. This allows 3 feet of fabric on each side of the tree. Just roll the fabric down each row of trees, cut a small x one foot wide in the center of the fabric at the location of each tree and lift the fabric over each tree. Staple the fabric down by hoeing a row 3 inches deep about three feet on each side of the trees so you can pin down the fabric with 8 inch fabric staples every four feet so you can bury the edges of the fabric to keep the fabric from blowing away. The fabric keeps the soil from drying out in the wind and holds moisture under the fabric so trees grow faster and better.

Fabric saves a lot of time and money when it's used in place of spraying weed killer between the trees to kill weeds. Problem is the spray can kill the trees. Fabric also prevents the need for tilling the entire tree rows and pulling weeds out from around each tree. In addition, the cost of the tillers can average over \$1000 and it takes hours of your time several times a year to keep trees free of weeds. The fabric costs more up front but will save you hundreds of hours of time and labor. By the third season, we were sick of tilling and pulling weeds so we invested in tree fabric. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

What helps trees, bushes and evergreen grow the best?

I don't generally use fertilizers on my bareroot trees until the third year allowing more time for the roots to grow so they can support more leaves. But I did use a root starter on all my trees the first year, which has a lot of phosphorous in it which promotes root growth and helps bare root trees that are still in shock from being dug up. Ask a local hardware store for the lowest cost root starter. The lowest cost fertilizer I found was a 10-10-10 garden fertilizer, but a root starter is even better. It's best not to provide too much nitrogen the first few years or the trees will grow too many leaves and that requires more roots to support which can put the trees in stress when it starts to get dry later in the summer. Evergreens and many trees require acid soil conditions to grow best. Some of the best growing conditions for evergreens are in Minnesota where the iron mines are located. Most soils in North Dakota are alkaline or have a high PH which makes it hard for evergreens and some trees to grow and survive. I like to add a water soluble iron pellet like Ironite to the soils around my trees. Rusty iron bolts and nails can also provide iron as they rust in the soil providing iron to the trees. I have seen great growth and color in my evergreens by just using a handful of Ironite and Gypsum around them. Gypsum keeps clay soils soft allowing roots to grow faster which helps trees grow faster and absorb more nutrients from the soil. Give it a try! Bags of these products cost under \$20 which is an inexpensive investment. Ask the NDSU Soil Department for the best amounts of each for your soil type in your yard. Soil tests are very cheap and easy to get. Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.

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How can I protect my trees from deer and other animal pests?

I lost up to 100 of my trees the first year to deer eating the tops off my trees. It's very frustrating losing trees to animals after you put so much time and money into making them grow. I used a lot of things to keep deer out of my trees but the best solution I found is rotten eggs. Just take 12-18 eggs and scramble them in a 1 gallon bucket and cover it and put it in the sun so it spoils quickly. Add water to fill the one gallon bucket after the eggs really start to smell which is around 5-7 days. Take a turkey baster and drip the egg mixture down the top of the tree and/or branches. The egg mixture will dry fast. In about 3 days, you will not smell it unless you get just a few inches away from the trees. Deer will avoid trees that smell bad since taste and smell go together. This egg mixture is cheap under \$2 per treatment and it also contains nitrogen which fertilizes trees when it washes off. I apply this egg mixture as soon as possible to the trees tops. If the tops of the trees are not eaten, the tree grows faster. Apply the mixture every spring and again later in the summer and fall for the first 2-3 years or until the tree tops are taller than the deer.

Anything that smells and looks human will keep deer out of your trees. I use solar lights, large garbage cans with human scented items in them on sticks and move them around the yard. The light, objects moving around the yard, and smells will keep deer wondering and/or are afraid hunters are close by. It does work as long as you keep moving items around, and keep the scent strong. The strongest human scent is sweat and feces. You can use your own imagination on how to get this on rags that you can post around the trees. Human hair scattered around the trees has also been used to keep wildlife out of the trees. I even go out in the trees at night or evenings so the deer see you out there. This keeps does and small fawns out of the trees.

All these options are very cheap and will work especially if your neighbors have trees. If their trees smell better, deer will stay in their shelterbelts and stay away from your trees. ☺ Call our helpline at 701-426-9707 if you have questions on what might work best on your trees.