

Fall Fruit and Nut Tree Sale

All selections of fruit and nut trees, vines, and shrubs offered in this sale are of varieties proven to perform well in Eastern North Carolina. *Some plants will be delivered field dug and bare root (without soil). **Plan to plant or heel in plants immediately after delivery.** Care instructions will be included at pick up.*

All orders are due with payment to Johnston County Center by Tuesday, November 30th, 2021. **Due to COVID-19, please plan to pick up your plants at the Johnston County Livestock Arena located at 520 County Home Rd. Smithfield, NC 27577.** If you have any questions, please call (919) 989-5380.

Plants will be available for pickup on Thursday, February 10, 2022 between 8am and 5pm.

Tips and Considerations

Site Selection

Proper site selection is critical in growing healthy, productive plants. All plants offered produce best in full sun. Blueberries are the most shade tolerant of the fruit plants available, and will produce even at 50% shade.

Good air circulation will help in reducing disease outbreaks. Plant all plants well away from buildings and tall trees. Avoid low-lying areas, or frost pockets, in order to protect spring blossoms.

Good drainage is essential for all fruit plants. If you have poorly drained soil and wish to grow fruit plants, create raised beds by mounding up the soil, or using some type of construction material for the sides. Beds need to be at least 12 inches deep.

Soil Testing

Once you select the site, take a soil sample and submit it to NCDA-Agronomic Division for analysis. Test results will provide advice on the amount of lime and nutrients needed. Most fruit plants perform best at a pH of 6.0, except blueberries, which need a more acidic soil.

It is important to incorporate lime and nutrients into the soil prior to the time of planting. Information on soil testing, forms, and boxes can be obtained from the NC Cooperative Extension Service. Soil testing is completely free if the samples are sent in between April and Thanksgiving. There will be a \$4.00 charge per soil sample if they are sent in during Thanksgiving through March 31st. If you would like Johnston County Agriculture Agents to take your sample to the lab, we need to receive them *the week before Thanksgiving*.

Nematode Testing

Nematodes are microscopic round worms, which can adversely affect plant health. Soil samples can be submitted to NCDA for nematode testing at a cost of \$3.00 per sample. Figs and peaches can be severely affected by high nematode populations. Populations are highest on sandy soils. If you are considering growing figs or peaches, and have sandy soil, a nematode test is recommended. Guardian rootstock on peaches is resistant to root knot nematodes and peach tree short life.

Pollination

Apples, pears, blueberries, and pecans which have the “X” symbol next to them to note that they require more than one variety for fruit set. Be sure to order at least two varieties of each of these fruit plants. Plants marked with an asterisk (*) are good universal pollinators for that fruit type or pecan tree.

Summary: We advise that once you have selected a site for your new plants, you take a soil sample to have tested for nutrients and pH as soon as possible. If you are purchasing fig bushes or peach trees, we also suggest you have a nematode assay done.

Note: These trees and shrubs are offered to you at wholesale, delivered prices; therefore, the nursery cannot guarantee livability of plant material, because most are bare-root trees. Since most plants are bare-root, make plans to plant them immediately after you pick them up on February 10, 2022. Fruit and nuts marked with  are from North Carolina suppliers.

Prepared by: Brandon Parker, Marshall Warren
Johnston County Extension Agent
Agriculture - Horticulture

“APPLES” 5

\$ 18.00 each

3-4 ft. tall plants, semi-dwarf - Geneva 41 rootstock Bare-root plants

These apple trees are grown on semi-dwarfing Geneva 41 rootstock which grow 25-30% of the size of a standard apple tree. A perfect size for urban gardens. The Geneva 41 rootstock has good precocity (produces fruit at a younger age) and is resistant to collar rot and fire blight. **It is recommended these grafted trees be trained and staked with a 10 ft. metal pole or trellised with two wires spaced at 3.5 ft. and 9 ft. heights.** Apples perform best on rich soils with good drainage and require full sun. Optimum soil pH is 6.0. You will need more than one apple variety to ensure adequate cross-pollination. For our area, Yellow Delicious is an excellent pollinator. Semi-dwarf trees should be spaced 10-14 feet apart.

Variety	Fruit Characteristics
Gala	Mild sweet and vanilla-like with a floral aroma, firm and crisp. Perfect snacking variety. One of the most widely grown.
Yellow Delicious*	Excellent pollinator source. Fine sweet flavor. Good for snacking or cooking.
Fuji	One of the sweetest apples around. Firm, crisp and very juicy. Long shelf life.

“BLACKBERRIES”

\$ 20.00 each

2 yr. old plants, 3 Gal. Container – Staked

(No need to wait-Enjoy blackberries in the 1st year with these plants)

Blackberries are among the easiest fruits to grow. They tolerate most soils and fruit best in full sun. Space plants 3' apart. All varieties listed are thorn less, Floricane-fruiting cultivars.

Variety	Type	Season	Comments
Ouachita	Erect	Early-Mid	Pronounced WAH-CHA-TAH. Excellent flavor and high yields. 400-500 chill hours. Ouachita is resistant to rosette disease and orange rust. Consistent production.
Navaho	Erect	Late	Sweet, high quality berries, good yield. Stores well. 800-900 chill hours. Navaho is tolerant of rosette disease but susceptible to orange rust.
Osage	Erect	Mid	New cultivar with superior flavor medium size

“BLUEBERRIES” 🪴 5

\$ 8.00 each

2-year-old plants, 1 Gallon Container plants

Blueberries require a well-drained sandy soil with abundant organic matter and a pH of 4.0 to 5.3. They will bear well in full sun to light shade. Amend the soil with four to six inches of pine bark mulch. This lowers pH and improves drainage. Mulch with pine straw or pine bark mini nuggets to reduce water stress and control weeds. Under these conditions' plants produce in abundance. The following Rabbiteye varieties produce best when at least two different varieties are planted together.

Variety	Ripens	Size	Fruit Characteristics	Comments
Legacy		Medium	Gray-blue berries	(Southern Highbush) Vigorous grower, heavy producer
Garden Blue	Late May/June	Medium	Light blue berries	Vigorous grower, fine flavor
Powder Blue	Late June-July	Med/Lg	Light blue berries	Sweet flavor, upright, good producer
Pink Lemonade	June/Oct	Medium	Pink berries	Firm, juicy sweet, Long producer, ornamental
Ira	July	Medium	Medium blue berries	Self-fertile, aromatic flavor, vigorous upright
Columbus	July	Large	Gray-blue berries	2005 NCSU introduction, High yields, sweet flavor, Bill Cline's favorite
Brightwell	June/July	Med/Lg	Light blue berries	Sweet flavor, upright vigorous
Montgomery	June	Med/Lg	Light blue berries	Very productive, semi-upright, good flavor
Southland	June/July	Med/Lg	Medium blue berries	Compact growth, sweet, ornamental

“FIGS”

\$15.00 each

2-3 ft. tall plants, Bare-root plants

Figs are as close as it gets to a fruit you can plant and forget. They prefer a moisture retentive, well-drained soil and full sun. On sandy soils, be sure to test for nematodes. Incorporate plenty of organic matter and mulch deeply. Figs are self-fertile – One bush sets fruit. Space 10 feet apart.

Varieties	Ripens	Size	Fruit Characteristics	Comments
Brown Turkey	Early July- Early Aug	Med- Large	Light coppery brown skin with amber flesh	Also called Texas Ever-bearing; Good fresh or canned.
Celeste	Mid July	Small	Violet or light brown skin with Strawberry pink flesh	Good fresh, canned or preserved.

“JAPANESE PERSIMMON”

\$ 25.00 each

3-4 ft. tall plants, Bare-root plants

The Japanese persimmon is a non-astringent variety meaning you can eat it while it is mature and firm. It is well adapted and easy to grow with few pest and disease problems. The compact spreading growth habit requires 16-foot spacing between trees. Grafted on American Persimmon root stock.

Variety	Ripens	Fruit	Fruit Characteristic	Comments
Fuyu	Oct – Nov	Med – Large	Reddish-orange skin, sweet and crisp	Excellent for cooking, most popular for fresh eating
Jiro	Sept – Oct	Med – Large	Red in color, sweet mild flesh	Sugarcane like flavor, needs a long hot summer to ripen, excellent fall color

“MUSCADINES” 🍇 5

\$ 18.00 each

2 yr. old plants, 1 Gallon Container – Staked

Our native Muscadines, tolerate a wide range of conditions, but perform best in moisture retentive well-drained soil and full sun, with a deep mulch of organic matter. Muscadines produce best and are easiest to manage when trained on a trellis.

Variety	Season	Color	Comments
Carlos*	Early	Bronze	Medium sized grapes excellent for fresh eating or wine, self fruitful
Fry	Mid	Bronze	Medium-large size, excellent quality, popular bronze, <i>pollinator required</i>
Jumbo	Mid-Late	Black	Largest of Muscadine grapes, sweet & delicious taste, <i>pollinator required</i>

“PEACHES”

\$ 18.00 each

4-5 ft. tall, Bare-root plants

All these peach varieties offered are grafted on Guardian rootstock. If you want success with growing peaches in our area, you should only buy the ones that are grafted on Guardian rootstock. Guardian Rootstock is resistant to root knot nematode and peach tree short life.

Peaches are among the most challenging, but rewarding fruits to grow. They require excellent drainage, full sun, good air circulation, and watering during drought. Peaches are self-pollinating and only one tree is needed for fruit set. A multi-purpose fungicide and insecticide program will be needed during the growing season. Trees should be spaced 20 feet apart. Be sure and test for nematodes, especially on sandy soils.

Chilling hours = the total number of hours below 45 degrees F that is needed during winter for flower buds to develop and bloom normally. Only varieties that require at least 750 hours of chilling are recommended to be grown in our area. The greater the chilling hours, the less likely the peach blossoms will be damaged by late frosts.

Varieties	Fruit Characteristics
Winblo	NCSU variety – Freestone medium to large sized, high quality fruit. 850 chilling hours. Fruit ripens 15 days before Elberta. Winblo is like the “perfect” peach! Sweet, juicy, it melts in your mouth! The flesh does not brown, so it is very well-suited for canning or freezing.
Contender	NCSU variety, large crops of sweet juicy yellow fruit, Free stone, 1050 chilling hours. Fruits ripen 7 days before Elberta. Disease resistant to bacterial spot.
Carolina Gold	NCSU variety, very large yellow fruit, texture, flavor and aroma are excellent. Free stone, 1050 chilling hours. Fruits ripen 4 days before Elberta. Disease resistant to bacterial spot.
China Pearl	NCSU variety, large, mild sweet, white-fleshed fruit, Free stone, 1100 chilling hours. Fruits ripen 4 days after Elberta

“PEARS” ✂

\$ 18.00 each

4-5 ft. tall plants, Bare-root plants

You will need more than one pear variety to ensure cross-pollination. For our area, Moonglow is an excellent pollen source. Trees should be spaced 20 feet apart. Harvest pears after they have reached full size but are still firm and green (about 105 to 130 days after full bloom). You can then ripen them by placing them in a closed bag with a ripe apple and placing the bag in a moderately cool location (60 to 70 degrees) for several days. Fire blight is a major problem on pears in the South. Avoid this by selecting fire blight resistant varieties like those below.

Variety	Ripens	Size	Fruit Characteristics	Comments
Keiffer	Early September	Large	Yellow skin at maturity; course gritty flesh; knotty, unattractive fruit.	An old favorite for canning or preserves. Resistant to fire blight.
Moonglow	Early August	Large	Yellow skin at maturity with soft-textured flesh and few grit cells.	Good fresh or canned. Resistant to fire blight. Excellent pollinator.
Seckel	August-September	Small	Reddish brown skin, 2” diameter fruit have sweet, aromatic flavor with few grit cells.	Excellent for fresh eating and canning. Moderately resistant to fire blight.

“PECANS” 🌳5

☆ \$ 37.00

○ \$ 42.00

5-6 ft. tall plants, 5 Gallon Container Plants in Soil

Pecans are native to the Mississippi River basin and prefer deep, rich, well-drained soils. Nut production requires cross-pollination between a Type I* and Type II variety. Trees in a mature orchard should be at least 70 feet apart. Scab is a common disease caused by a fungus that attacks the leaves and the shuck. Manage the disease by choosing scab-resistant varieties, such as the ones below.

Varieties	Bearing Age	Nuts/lbs.	Fruit Characteristics	Comments
○ Lakota Type II	5-7 years	56	Early nut maturity. Nuts are 58% kernel	USDA introduction 2007. High Scab Resistance, yield and nut quality. Excellent tree strength.
○ Mandan Type I*	5-7 years	49	Early nut maturity and ripening. Nuts are 60% kernel	USDA introduction 2009. High Scab Resistance, yield and nut quality. Excellent tree strength and late bud break.
☆ Sumner Type II	6-8 years	54	Nuts are 51% kernel. Late harvest date.	Thin shell, easily cracked and shelled. Good Scab Resistance, yield and nut quality. An older variety with proven results.
☆ Gafford Type I*	6-7 years	56	Nuts are 50% kernel. Mid to late harvest date	Excellent pest and Scab Resistance with high yields. Good for low input plantings.

For More Information:

When deciding which fruit plants to grow in your home garden be sure to think about the following:

- ✓ Do you have an appropriate site – full sun, well-drained soil?
- ✓ Maintenance requirements: pest management; training and pruning requirements; irrigation.
- ✓ Do you have space for plants to mature?
- ✓ What is your soils pH? Do you need to add lime or nutrients? Have you done a soil test?

For more information, consult the following publications online, or stop by the NC Cooperative Extension, Johnston County Center located at 2736 NC Highway 210 in Smithfield to pick up a copy.

Horticulture Information Leaflets

<https://horticulture.ces.ncsu.edu/publications/>

Muscadine Grapes in the Home Garden Growing
Blueberries in the Home Garden Production
Guide for Smaller Orchard Plantings
Southeast Regional Caneberry Production Guide
Muscadine Grape Production Guide for the
Southeast
A Step-by-Step Approach to Pruning Carlos
Muscadine Grapevines

Resources from:

Tree Fruits and Nuts
Training and Pruning Fruit Trees in NC
2019 NC Peach and Nectarine Disease
and Pest Management Guide
Growing Pecans in NC
A Gardeners Guide to Soil Testing
Fig Culture in NC

governments, to form a strategic partnership called N.C. Cooperative Extension.



Check out our website:
JOHNSTON COUNTY CENTER
www.johnston.ces.ncsu.edu

✓ Find us on Facebook:
@NCCEJohnstonCounty

✓ Sign up for our newsletters or updates by
visiting our website and clicking on the left-hand
side menu that says "Sign-Up for ALL Our
Newsletters **HERE**"

✓ Call our office at (919) 989-5380

✓ Have Gardening Questions? Email:
jcemastergardener@gmail.com to get tips from
certified Extension Master Gardeners

Thank you!

NC State and N.C. A&T State universities are collectively committed to positive action to secure equal opportunity and prohibit discrimination and harassment regardless of age, color, disability, family and marital status, gender identity, genetic information, national origin, political beliefs, race, religion, sex (including pregnancy), sexual orientation and veteran status. NC State, N.C. A&T, USDA and local governments cooperating.

Declaración Completa (Español) "La Extensión Cooperativa de Carolina del Norte prohíbe la discriminación y el acoso independientemente de la edad, el color de la piel, la discapacidad de la persona, el estado civil y situación familiar, la identidad de género, el país de origen, la ideología política, la raza, la religión, el sexo (incluido el embarazo), la orientación sexual y la condición de veterano de guerra. Colaboración entre las Universidades NC State y N.C. A&T State, el Departamento de Agricultura de los Estados Unidos, y los gobiernos locales.

Contact bmspivey@ncsu.edu or 919-989-5380 for accommodations related to a disability

FALL FRUIT & NUT TREE SALE

ORDER FORM

ALL ORDER FORMS ARE DUE BY TUESDAY, November 30, 2021

Name:		Phone:		
Address:		Email:		
FRUIT	VARIETY	PRICE	# OF PLANTS	TOTAL AMOUNT
APPLES	Gala	\$ 18.00		
	Yellow Delicious	\$ 18.00		
	Fuji	\$ 18.00		
BLACKBERRIES	Ouachita (local, container grown)	\$ 20.00		
	Navaho (local, container grown)	\$ 20.00		
	Osage (local, container grown)	\$ 20.00		
BLUEBERRIES	Legacy (local, container grown)	\$ 8.00		
	Garden Blue (local, container grown)	\$ 8.00		
	Powder Blue (local, container grown)	\$ 8.00		
	Pink Lemonade (local, container grown)	\$ 8.00		
	Ira (local, container grown)	\$ 8.00		
	Columbus (local, container grown)	\$ 8.00		
	Brightwell (local, container grown)	\$ 8.00		
	Montgomery (local, container grown)	\$ 8.00		
	Southland (local, container grown)	\$ 8.00		
FIGS	Brown Turkey	\$ 15.00		
	Celeste	\$ 15.00		
JAPANESE PERSIMMONS	Fuyu	\$ 25.00		
	Jiro	\$ 25.00		
MUSCADINES	Carlos (local, container grown)	\$ 18.00		
	Fry (local, container grown)	\$ 18.00		
	Jumbo (local, container grown)	\$ 18.00		
PEACHES	Winblo	\$ 18.00		
	Contender	\$ 18.00		
	Carolina Gold	\$ 18.00		
	China Pearl	\$ 18.00		
PEARS	Keiffer	\$ 18.00		
	Moonglow	\$ 18.00		
	Seckel	\$ 18.00		
PECANS	Sumner Type II (local, 5 gal. container)	\$ 37.00		
	Gafford Type I (local, 5 gal. container)	\$ 37.00		
	Lakota Type II (local, 5 gal. container)	\$ 42.00		
	Mandan Type I (local, 5 gal. container)	\$ 42.00		
PAYMENT DUE WITH ORDER FORM		TOTAL # OF PLANTS:	TOTAL \$	

Send completed order form WITH CHECK made payable to Johnston County Ag. Center

MAIL TO: Johnston County CES, Attn: Fruit & Nut Tree Sale, 2736 NC Highway 210 Ste. A, Smithfield, NC 27577-9556

NOTE: These trees and shrubs are offered by you at wholesale, delivered prices; therefore, the nursery cannot guarantee livability of plant material. Since most of the plants offered are bare-root, please make plans to plant them immediately after they have been picked up. **If you need any assistance, please call our office at (919) 989-5380. Thank you.**