



Cultivar Selection: Choosing the Right Pecan for Your Place

Overview

Selecting the right pecan cultivar is one of the most important decisions a homeowner can make when establishing or maintaining a home orchard. Louisiana's climate varies significantly from north to south, and disease pressure — especially from pecan scab — can make or break a tree's long-term performance. This guide focuses on cultivars that are well-suited to low-input settings and offers recommendations based on regional adaptability, pollination compatibility and homeowner-friendly traits.

This publication will cover:

1. **Recommended Varieties for North and South Louisiana:** Divides the state into two growing regions — Alexandria and north versus south of Alexandria — and explains how disease resistance, climate adaptability and homeowner-friendly traits guide cultivar selection.
2. **Core Cultivars for Louisiana Home Orchards:** Provides detailed profiles of recommended cultivars, including pollination type, scab resistance, nut characteristics, bearing age, alternate bearing tendency, strengths, concerns and best uses.
3. **Trial Pecan Cultivars for Louisiana Home Orchards:** Highlights promising selections with limited data, recommended for evaluation in low-input or experimental plantings.
4. **Regionally Significant and Historic Cultivars with Limited Modern Relevance for Home Orchards:** Covers cultivars once widely planted but now outdated due to scab susceptibility or inconsistent performance, included for historical context and regional familiarity.
5. **Pollination Compatibility and Flowering Type:** Explains Type I and Type II flowering, the importance of cross-pollination in home orchards and includes pollination tables and summary charts comparing flowering types and compatible pollinators.

1. Recommended Varieties for North and South Louisiana

Cultivar performance in Louisiana varies by region due to differences in climate, disease pressure and growing conditions. For simplicity and clarity, this guide divides the state into two zones:

- **North Louisiana:** Alexandria and areas north
- **South Louisiana:** South of Alexandria

Each recommended cultivar is selected based on a combination of the following criteria:

- **Disease resistance:** Resistance or tolerance to pecan scab is a top priority, especially for home growers who may not have access to commercial spray equipment. Cultivars with strong natural resistance are better suited to low-input management and are more likely to remain productive over time.
- **Climate adaptability:** Louisiana's climate varies significantly from north to south. Cultivars must be able to tolerate late spring freezes in the north and withstand the prolonged heat and humidity of the south. Regional testing and long-term performance data help identify which cultivars are best suited to each zone.
- **Precocity (bearing age):** Some cultivars begin producing nuts earlier than others, often within three to five years of planting. These **precocious** varieties offer quicker returns and are especially valuable in home settings where long-term patience may be limited.

For clarity, this guide uses the following categories for bearing age:

- **Precocious:** 3 to 5 years
- **Moderate:** 6 to 8 years
- **Slow:** 9+ years

Cultivars like Lakota, Excel and Manda are noted for precocity, while others like Kanza and Amling fall into the moderate range.

- **Nut quality:** This quality plays a major role in determining which cultivars are worth growing in home orchards. Key traits include kernel fill, shell thickness, ease of cracking and flavor. Cultivars with consistently poor fill, dark or fuzzy kernels, or difficult shelling were excluded, even if they were historically popular or widely available. By prioritizing cultivars with good eating quality and shelling performance, this guide helps ensure that your harvest is both enjoyable and practical.
- **Homeowner-friendly traits:** In addition to disease and climate considerations, cultivars are evaluated for traits that matter in home settings. These include manageable tree size, early bearing age, consistent production, ease of cracking, kernel quality and reduced maintenance needs.

How These Traits Shaped the Cultivar List

Disease resistance and nut quality were the two most important factors in deciding which cultivars to recommend. If a cultivar didn't meet minimum standards in either area, it wasn't included in the core list, even if it had other appealing traits like early bearing or attractive tree form.

Scab resistance was nonnegotiable. Only cultivars with a strong track record under Louisiana conditions made the cut.

Some cultivars that show promise but still need more observation — either for nut quality or long-term disease performance — are listed in the “Trial Pecan Cultivars for Louisiana Home Orchards” publication. These may work well in certain settings, but they’re not yet ready for broad recommendation.

By focusing on cultivars that balance both resilience and eating quality, you’ll be more likely to grow trees that are not only low-maintenance but also rewarding to harvest and enjoy.

2. Core Cultivars for Louisiana Home Orchards

The cultivars in this section are the primary recommendations for home orchardists in Louisiana. Each has demonstrated strong performance under low-input conditions and is well-suited to the state's climate and disease pressures. These selections offer a balance of scab resistance, kernel quality and manageable growth habits, making them reliable choices for homeowners seeking consistent production with minimal spraying. Regional suitability, pollination compatibility and long-term tree health were key factors in their inclusion.

Core pecan cultivars for Louisiana home orchards.

Cultivar	Flowering Type	Bearing Age	Nut Size	Scab Resistance	Recommended Region(s)	Notable Traits
Amling	Type I	Moderate (6-8 yrs)	Medium-small	Excellent	North and south La.	Attractive tree form, good pollinator
Elliott	Type II	Slow (10-12 yrs)	Small	Excellent	South La. (freeze-sensitive)	Premium flavor, alternate bearing
Excel	Type II	Precocious (3-5 yrs)	Large	Excellent (short-term)	North and south La. (better in the north)	Early yield, short lifespan
Gafford	Type I	Moderate	Medium	Excellent	North and south La.	Consistent yields, good foliage
Jackson	Type II	Moderate	Very large	Good	North La.	Low nut set, compact tree
Kanza	Type II	Moderate	Small	Excellent	North and south La.	Cold tolerant, good shelling
Lakota	Type II	Precocious (3-5 yrs)	Medium-large	Excellent	North and south La.	Early yields, may overbear
Manda	Type II	Precocious (3-5 yrs)	Medium	Good	North and south La.	Early yielder with heavy crop potential
McMillan	Type II	Moderate	Medium	Good	North and south La.	Stable yields, good foliage
Syrup Mill	Type I	Moderate	Medium-large	Good to wExcellent	North La.	Good kernel quality, strong pollinator
Woodman	Type I	Moderate	Medium	Excellent	North and south La.	Attractive tree form, reliable production

Amling

Pollination type: Type I (protandrous)

Pollination window: Early to midseason

Recommended pollinators: Avalon, Elliott, Gafford, Kanza, Excel, Lakota, McMillan

Recommended region(s): North and south Louisiana

Scab resistance: Excellent

Nut characteristics: Medium-to-small nuts (about 60 nuts/pound), about 53% kernel, good shelling quality

Bearing age: Moderate (6 to 8 years)

Alternate bearing tendency: Moderate

Notable strengths:

- Amling has high scab resistance, even under low-input conditions.
- It has vigorous growth and strong tree structure.
- It's an effective pollinator for Type II cultivars like Elliott.
- **Exceptional landscape appeal.** Amling forms a symmetrical, upright tree with attractive foliage and branch structure. If tree appearance is a priority, Amling is one of the best choices available.

Potential concerns:

- Smaller nut size may limit market appeal in some settings.
- Yield can be variable in low-input systems.

Best uses:

- Excellent choice for low-spray or no-spray home orchards
- Strong candidate as a pollinator tree
- Suitable for both main crop and support roles in mixed plantings



Amling often sets nuts in tight clusters, reflecting its moderate alternate bearing tendency and reliable pollination traits. Photo by Michael Polozola



Amling forms a symmetrical, upright tree with strong branch structure and attractive foliage, making it one of the most visually appealing cultivars for home orchards. Its vigorous growth supports good canopy development and long-term productivity. Photo by Michael Polozola



Amling produces medium-to-small nuts with approximately 53% kernel, offering good shelling quality despite smaller size. Photo by Michael Polozola

Elliott

Pollination type: Type II (protogynous)

Pollination window: Midseason

Recommended pollinators: Amling, Gafford (partial), Jackson, Woodman, Syrup Mill

Recommended region(s): South Louisiana; can be prone to freeze sensitivity and frost damage in parts of north Louisiana

Scab resistance: Excellent (long-standing resistance under high disease pressure)

Nut characteristics: Small, teardrop-shaped nuts (about 67 to 77 nuts/pound), about 51% to 53% kernel, moderate shell, excellent cracking quality, bright kernel color, outstanding flavor

Bearing age: Slow (often 10 to 12 years in low-input settings)

Alternate bearing tendency: High

Notable strengths:

- Elliott has exceptional scab resistance, even in unsprayed orchards.
- It has high kernel quality and flavor and often fetches premium prices in Louisiana markets due to its reputation for excellent fill and taste.
- Trees have strong branch angles and good structure.
- Widely considered a benchmark cultivar for disease resistance and performance in low-input systems. Many other varieties are compared to Elliott in these areas.
- It is notoriously prone to alternate bearing, especially in low-input settings or when foliage health is compromised.

Potential concerns:

- It is sensitive to late spring freezes and not suitable for northern plantings.
- The smaller nut size may limit appeal in some commercial markets.
- In high production years or under very low-input conditions, Elliott may produce

Elliott often produces tight clusters with good kernel fill, even under low-input conditions. Photo by Michael Polozola



Elliott forms a compact, upright tree with dense foliage and a strong central leader. Its growth habit makes it well-suited for smaller orchard spaces and landscape use. Photo by Michael Polozola



Elliott's small nuts yield high-quality kernels with excellent shelling characteristics. Photo by Michael Polozola

Elliott continued

- a portion — or even a majority — of very small nuts that do not resemble their typical teardrop shape. While kernel fill often remains good, these undersized nuts may be less marketable and can vary noticeably from the cultivar's usual appearance.
- Gnomonia leaf spot (vein spot) has become more noticeable on Elliott in parts of south Louisiana. It may contribute to premature defoliation in wet years which can cause severe alternate bearing.

Best uses:

- Ideal for low-input or no-spray home orchards in south Louisiana
- Excellent choice for homeowners prioritizing flavor and disease resistance
- Can serve as a main crop or pollinator for Type I cultivars



In high production years or under very low-input conditions, Elliott may produce a portion — or even a majority — of very small nuts that do not resemble the cultivar's typical teardrop shape. While kernel fill often remains good, these undersized nuts may be less marketable and can vary noticeably from Elliott's usual appearance. This in-hand comparison and ruler reference show scale. Photos by Michael Polozola

The defoliated Elliott tree in the foreground with Woodman trees retaining foliage in the background highlights cultivar differences in disease response. Photo by Kyle Peveto



Excel

Pollination type: Type II (protogynous)

Pollination window: Early to midseason

Recommended pollinators: Amling, Avalon, Elliot, Gafford, Lakota, McMillan, Syrup Mill, Woodman

Recommended region(s): North and south Louisiana (better suited for north)

Scab resistance: Excellent (so far)

Nut characteristics: Large nuts (about 45 to 50 nuts/pound), about 48% to 49% kernel, thick shell, attractive kernel color

Bearing age: Early (3 to 5 years, precocious)

Alternate bearing tendency: Moderate

Notable strengths:

- Excellent scab resistance under low-input conditions
- Large nut size with good visual appeal
- Strong early production potential

Potential concerns:

- Tree form is willowy with weak branch structure and prone to limb breakage.
- Trees often begin to decline or die around 15 to 20 years of age.
- Kernel fill and quality can be inconsistent under heavy crop loads.

Best uses:

- Excel is suitable for both north and south Louisiana home orchards, especially where early production is desired.
- It may serve as a temporary cultivar in mixed plantings.
- It can be considered for early yield with plans to thin or replace as trees age.



Excel nuts form in terminal clusters with large, thick shells and attractive kernel color. Photo by Michael Polozola



Excel trees have a willowy growth habit with weak branch angles, making them prone to limb breakage and structural decline as they age. Photo by Michael Polozola



Excel nuts are consistently large with a thick shell and kernel percentage near 48% to 49%. Photo by Michael Polozola

Gafford

Pollination type: Type I (protandrous)

Pollination window: Midseason

Recommended pollinators: Avalon, Elliot (partial) Excel, Lakota, McMillan, Syrup Mill

Recommended region(s): North Louisiana

Scab resistance: Excellent

Nut characteristics: Medium-sized nuts (about 56 nuts/pound), about 50% kernel, bright kernel color, moderate shell thickness

Bearing age: Moderate

Alternate bearing tendency: Moderate

Notable strengths:

- Excellent scab resistance and strong foliage health, even in unsprayed settings
- Consistent yields under low-input conditions
- Holds foliage later into the season than Elliott

Potential concerns:

- Kernel quality is acceptable but not exceptional and may be considered average for retail.
- Alternate bearing can be more pronounced in low-input settings.
- Gafford is not a perfect pollination match for Elliott but offers some overlap.

Best uses:

- Strong candidate for no-spray home orchards in both north and south Louisiana
- Useful as a supporting cultivar in mixed plantings
- May serve as a pollinator for Type II cultivars, including Elliott



Gafford nuts form in compact clusters on terminal shoots. Nuts are medium-sized with moderate shell thickness and bright kernel color. Photo by Michael Polozola



Gafford trees have a strong central leader and upright scaffold limbs, maintaining good structure and foliage health even in unsprayed settings. Photo by Michael Polozola



Gafford nuts show consistent size and shape, with moderate shell thickness and good kernel brightness. Photo by Michael Polozola

Jackson

Pollination type: Type II (protogynous); one of the few that often has both blooms at the same time

Pollination window: Midseason to late season

Recommended pollinators: Elliot, Excel, Kanza, Syrup Mill

Recommended region(s): North Louisiana

Scab resistance: Good

Nut characteristics: Very large nuts (low nut count/pound), medium kernel quality, darker kernel color, typically one nut per cluster

Bearing age: Moderate

Alternate bearing tendency: Low (due to low nut set)

Notable strengths:

- Jackson has good scab resistance in unsprayed settings.
- Very large, attractive nuts can be a strong option for retail and premium-quality pecans when managed with appropriate inputs.
- Its compact tree size and slower growth make it suitable for residential settings.
- A low fruit set per cluster may help reduce alternate bearing, making Jackson a more consistent performer in low-input systems.

Potential concerns:

- Low productivity; typically produces only one nut per cluster
- Kernel color is often darker than preferred
- Not suitable for commercial production

Best uses:

- Useful as a pollinator for Type I cultivars
- Best suited for homeowners prioritizing tree health and nut appearance over yield



Jackson typically sets one nut per cluster, producing very large nuts with darker kernel color. Photo by Michael Polozola



Jackson trees have a compact growth habit with moderate canopy density, making them suitable for residential settings. Photo by Michael Polozola



Jackson nuts show exceptional size compared to other cultivars, though kernel quality is average. Photo by Michael Polozola

Kanza

Pollination type: Type II (protogynous)

Pollination season: Early to midseason

Recommended pollinators: Amling, Gafford, Jackson, Syrup Mill, Woodman

Recommended region(s): North and south Louisiana

Scab resistance: Excellent (so far)

Nut characteristics: Small, round nuts (about 74 nuts/pound), about 49% to 52% kernel, moderate shell, excellent cracking quality, similar in appearance to Elliott

Bearing age: Moderate

Alternate bearing tendency: Moderate to high

Notable strengths:

- Strong cold tolerance and scab resistance
- High kernel quality and good shelling characteristics
- Later bud break than Elliott, making it better suited for northern sites

Potential concerns:

- Nut drop may occur over an extended period, which can complicate harvest timing in a home setting.
- Kanza tends to enter dormancy earlier in southern plantings, which may be mistaken for premature leaf drop but is often normal.
- In heavy production years or under low-input conditions, Kanza may produce a portion — or even a majority — of very small nuts that do not resemble their typical shape or size. While kernel fill often remains good, these undersized nuts may be less marketable and can vary noticeably from the cultivar's usual appearance.
- Its long-term performance in south Louisiana still being evaluated.

Best uses:

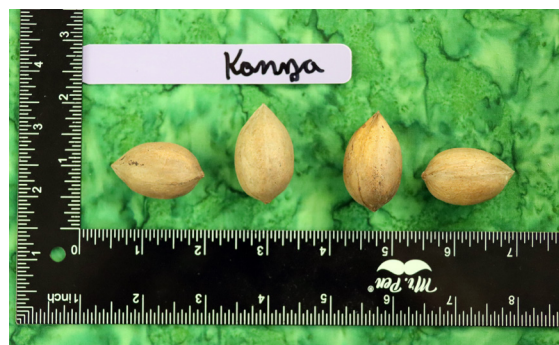
- Excellent alternative to Elliott in north Louisiana
- Adds genetic diversity in mixed plantings
- Suitable for low-input orchards in both regions



Kanza nuts form in compact clusters on terminal shoots. Nuts are small, round and similar in appearance to Elliott. Photo by William Reid



Rows of Kanza trees in an orchard setting show uniform structure and strong scaffold limbs, contributing to good wind resistance and overall health. Photo by William Reid



Kanza nuts show consistent size and shape, though occasional variation may occur in heavy production years. Photo by Michael Polozola

Lakota

Pollination type: Type II (protogynous)

Pollination season: Early to midseason

Recommended region(s): North and south Louisiana

Recommended pollinators: Amling, Gafford, Jackson, Syrup Mill, Woodman

Scab resistance: Excellent

Nut characteristics: Medium-to-large nuts, good kernel fill, attractive appearance

Bearing age: Early (precocious)

Alternate bearing tendency: High (especially without crop thinning)

Notable strengths:

- Very early production; often bears within a few years of planting
- Excellent scab resistance under high disease pressure
- Strong early yields; good option for short-term returns

Potential concerns:

- Lakota tends to overbear, which can lead to early decline if not managed.
- Kernel defects may occur when the tree overproduces, especially in high-yield years or low-input settings. Nuts may appear misshapen or poorly filled despite good initial kernel development.
- It may require mechanical shaking or manual thinning later in life to maintain nut quality and tree health.
- Lakota is susceptible to bacterial leaf scorch in some years.



Lakota nuts form in compact clusters on terminal shoots. Nuts are medium to large with good kernel fill and attractive appearance. Photo by Michael Polozola

Lakota trees have an upright growth habit with a moderately spreading canopy, making them suitable for home orchards and mixed plantings. Photo by Michael Polozola



Lakota nuts display consistent size and shape, though kernel defects and size variation may occur when trees overbear. Photo by Michael Polozola

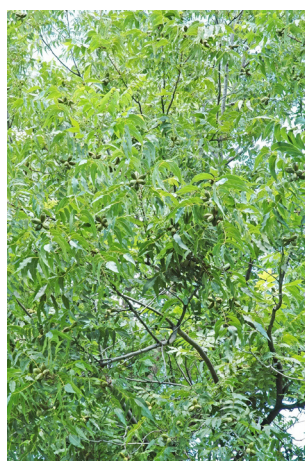
Lakota continued

- Trees may require thinning or eventual replacement in long-term plantings.

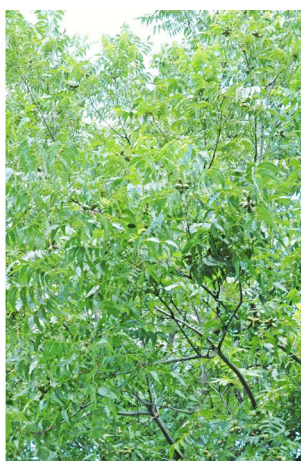
Best uses:

- Good choice for homeowners wanting early production
- Suitable for both regions, especially when paired with longer-lived cultivars
- Can be used as a temporary tree in long-term orchard plans

A tractor-mounted shaker can attach to the trunk of a tree during mechanical thinning. Shaking helps reduce excessive nut load and improves kernel quality in high-yield years. Photo by William Reid

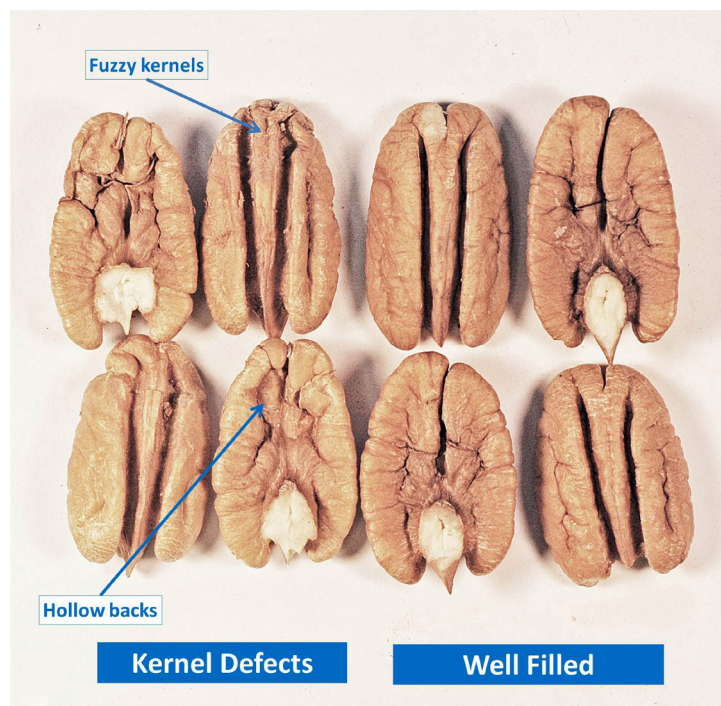


Before shaking



After shaking

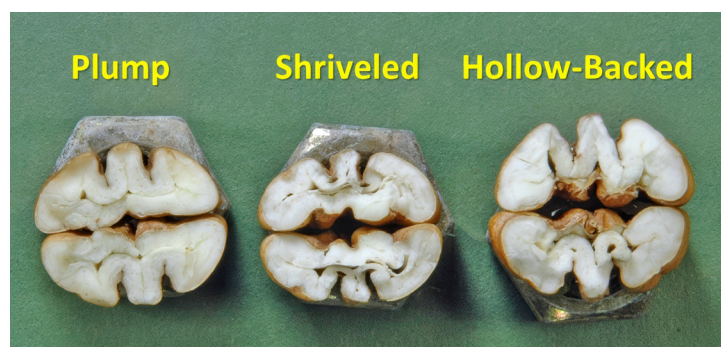
Comparison of Lakota canopy before shaking, left, and after shaking. Removing excess nuts helps prevent kernel defects and reduces stress on the tree. Photos by William Reid



Examples of Lakota kernels showing common defects when trees overbear. At left are fuzzy kernels and hollow backs. At right are well-filled kernels with normal development. Photo by William Reid



Comparison of plump kernels, left, and shriveled kernels which can occur under stress or excessive crop load. Photo by William Reid



Cross-section view showing, from left, plump kernels, shriveled kernels and hollow-backed kernels. These defects reduce nut quality and are often linked to overproduction. Photo by William Reid

Manda

Pollination type: Type II (protogynous)

Pollination season: Early to midseason

Recommended pollinators: Amling, Gafford, Woodman, Syrup Mill

Recommended region(s): North and south Louisiana

Scab resistance: Appears excellent based on field observations

Nut characteristics: Medium-sized nuts with good kernel fill; strong early production

Bearing age: Early (precocious)

Alternate bearing tendency: Low to moderate

Notable strengths:

- Native selection from south Louisiana
- Early bearing and heavy cropping without severe alternate bearing
- Strong tolerance and apparent resistance to pecan scab in unsprayed settings
- Good candidate for low-input orchards

Potential concerns:

- Limited formal data on long-term performance
- Heavy yields can lead to limb breakage if not managed
- Kernel quality appears acceptable but needs more evaluation for premium retail markets

Best uses:

- Excellent choice for homeowners seeking early production and disease tolerance
- Suitable for both regions, especially when paired with longer-lived cultivars
- Can serve as a pollinator for Type I cultivars in mixed plantings

Manda nuts form in compact clusters on terminal shoots. Nuts are medium-sized with good kernel fill and attractive appearance. Photo by Michael Polozola



Manda trees have a moderately upright growth habit with a balanced canopy, making them suitable for home orchard settings. Photo by Michael Polozola



Manda trees can experience limb breakage when carrying excessive nut loads, especially in years of high production. Proper pruning and crop thinning can help reduce this risk and maintain tree health. Photo by Michael Polozola



McMillan

Pollination type: Type II (protogynous)

Pollination season: Midseason to late season

Recommended pollinators: Amling, Elliot, Gafford, Kanza, Syrup Mill, Woodman

Recommended region(s): North and south Louisiana

Scab resistance: Good

Nut characteristics: Medium-sized nuts (about 56 nuts/pound), about 51% kernel, average shell thickness, consistent kernel fill

Bearing age: Moderate

Alternate bearing tendency: Low to moderate

Notable strengths:

- Consistent yields and good foliage retention
- Better kernel fill and yield stability than Gafford in some trials
- Holds foliage later into the season than Elliott

Potential concerns:

- McMillan's kernel quality is average and not as visually appealing as some other cultivars.
- Minor limb breakage has been observed in heavy crop years.

Best uses:

- Strong candidate for low-input orchards in north and south Louisiana
- Suitable for homeowners seeking consistent production with minimal spraying

McMillan nuts form in compact clusters on terminal shoots. Shucks often display subtle ridges along their length, a characteristic feature of this cultivar. Photo by Michael Polozola



McMillan trees have an upright growth habit with strong limb structure, supporting consistent yields in home orchard settings. Photo by Michael Polozola



McMillan nuts average about 56 nuts per pound with approximately 51% kernel, typical of improved cultivars adapted for Louisiana conditions. Photo by Michael Polozola

Syrup Mill

Pollination type: Type I (protandrous)

Pollination season: Midseason

Recommended pollinators: Amling, Elliott, Excel, Jackson (partial) Kanza, Lakota, McMillan

Recommended region(s): North Louisiana

Scab resistance: Good to excellent

Nut characteristics: Medium to large nuts, good kernel fill, attractive appearance

Bearing age: Moderate

Alternate bearing tendency: Moderate

Notable strengths:

- Performs well in north Louisiana and fairly well in the south
- Strong pollinator with good kernel quality
- Scab resistance appears stable in multiple locations
- Produces a beautiful kernel that shells out well
- Shell shape aids cracking — the pointed end helps initiate shell breakage

Potential concerns:

- Syrup Mill has mixed feedback from growers. More data is needed to confirm long-term performance.
- It may not be ideal for high-humidity southern sites without further testing.
- The pointed end of the shell is hollow, which increases shell weight relative to kernel weight. This can reduce kernel percentage and may be a disadvantage for growers selling to accumulators or by weight.

Best uses:

- Suitable for north Louisiana home orchards with moderate disease pressure
- Can serve as a pollinator or supporting cultivar in mixed plantings



Syrup Mill nuts show medium to large size with good kernel fill and an attractive appearance. The pointed end of the shell aids cracking and is a distinctive feature of this cultivar. Photo by Michael Polozola



Syrup Mill nuts display uniform size and shape, with kernel percentage influenced by the hollow tip at the pointed end. This feature can slightly increase shell weight relative to kernel weight. Photo by Michael Polozola

Woodman

Pollination type: Type I, but there are reports that it may have an overlapping blooming window and even potentially be self-fertile.

Pollination season: Midseason

Recommended pollinators: Elliott, Excel, Jackson, Kanza, Lakota, McMillan, Syrup Mill

Recommended region(s): North and south Louisiana

Scab resistance: Excellent

Nut characteristics: Medium-sized nuts, consistent kernel fill, average to good quality

Bearing age: Moderate

Alternate bearing tendency: Low

Notable strengths:

- Native selection from Pointe Coupee Parish with strong scab resistance
- Excellent foliage retention and strong branch structure
- Observed to be a viable pollinator for Elliott
- Beautiful tree form — vigorous growth with a symmetrical, upright canopy; one of the most attractive cultivars for landscape or orchard use
- Consistent production with low alternate bearing tendency, making it a reliable performer in low-input systems

Potential concerns:

- Kernel quality is average and not as high as premium cultivars.
- Official yield data is still limited.

Best uses:

- Excellent fit for no-spray orchards in both regions
- Valuable as a pollinator and supporting cultivar in mixed plantings
- Promising long-term performer in low-input systems



Woodman nuts form in compact clusters on terminal shoots, showing medium nut size and consistent kernel fill. Photo by Michael Polozola



Woodman trees have a symmetrical, upright canopy with moderate spread, making them one of the most attractive cultivars for home orchards and landscapes. Photo by Michael Polozola



Woodman nuts average medium size with consistent shape and kernel percentage typical of improved native selections adapted for Louisiana conditions. Photo by Michael Polozola

3. Trial Pecan Cultivars for Louisiana Home Orchards

The following cultivars show potential for Louisiana home orchards based on field observations, limited trials or performance in similar environments. While they are not broadly recommended due to limited data, they may be worth trialing in low-input or experimental plantings.

Trial pecan cultivars for Louisiana home orchards.

Cultivar	Flowering Type	Bearing Age	Nut Size	Scab Resistance	Recommended Region(s)	Notable Traits
Adams 5	Type I	Unknown (likely moderate)	Medium	Moderate to good (anecdotal)	Trial in north La.	Less common cultivar; may offer good resistance
Avalon	Type II	Moderate	Medium to large	Excellent	Trial in north La.	High kernel quality; promising for no-spray orchards
Prilop	Type II	Moderate	Very small	Moderate to high	Trial in north and south La.	Performs well under high scab pressure
Sterling	Type I	Precocious (by Year 7)	Medium	Excellent (no observed scab in 20 years)	Trial in north and south La.	Easy to crack; consistent production; good flavor

Adams 5

Pollination type: Type I (protandrous)

Pollination season: Midseason to late season

Recommended pollinators Elliott, Kanza, Excel, Lakota, McMillan, Jackson

Recommended region(s): Trial in north Louisiana

Scab resistance: Reported to be moderate to good

Nut characteristics: Medium-sized nuts with decent kernel quality (limited data)

Bearing age: Unknown (likely moderate)

Alternate bearing tendency: Unknown

Notable strengths:

- Anecdotal reports suggest good scab resistance
- May offer an alternative for growers seeking less common cultivars

Potential concerns:

- No formal trial data available
- Long-term performance and availability are uncertain

Best uses:

- Worth trialing in north Louisiana home orchards
- May be of interest to growers seeking new or underutilized cultivars



Adams 5 nuts show medium size and decent kernel quality based on limited observations. This cultivar is still under evaluation for long-term performance. Photo by Michael Polozola



Adams 5 nuts display uniform shape and size, with kernel percentage typical of mid-sized cultivars adapted for Louisiana conditions. Formal data is limited and ongoing trials will clarify performance. Photo by Michael Polozola

Avalon

Pollination type: Type II (protogynous)

Pollination season: Midseason to late season

Recommended pollinators: Amling, Excel, Gafford, Woodman, Syrup Mill

Recommended region(s): Trial in north Louisiana

Scab resistance: Excellent

Nut characteristics: Medium-to-large nuts, high kernel percentage, attractive appearance

Bearing age: Moderate

Alternate bearing tendency: Moderate

Notable strengths:

- Scab resistant, but it is starting to lose that in some areas.
- High-quality nuts with good kernel fill and appearance
- Promising for no-spray or low-input orchards

Potential concerns:

- Limited trial data in Louisiana
- Availability may be limited depending on nursery sources

Best uses:

- Worth trialing in home orchards seeking scab-resistant alternatives
- Potential fit for organic or low-input systems in both regions



Avalon nuts show medium-to-large size with high kernel percentage and attractive appearance, making them a promising option for home orchards. Photo by Michael Polozola



Avalon nuts display uniform size and shape, with kernel percentage typical of high-quality cultivars adapted for Louisiana conditions. Photo by Michael Polozola

Prilop

Pollination type: Type II (protogynous)

Pollination season: Midseason

Recommended pollinators: Amling, Gafford, Woodman, Syrup Mill

Recommended region(s): Trial in north and south Louisiana

Scab resistance: Moderate to high

Nut characteristics: Very small nuts (84 nuts/pound), 54% kernel

Bearing age: Moderate

Alternate bearing tendency: Moderate

Notable strengths:

- Performs well under high scab pressure (e.g., Fairhope Research Station)
- Good kernel fill despite small nut size

Potential concerns:

- Very small nut size may limit appeal.
- There is limited formal trial data in Louisiana.

Best uses:

- Worth trialing in home orchards where scab pressure limits other options
- Potential fit for low-input or no-spray settings

Sterling

Pollination type: Type I (protandrous)

Pollination season: Early

Recommended pollinators: Elliott, Kanza, Excel, Jackson Lakota, McMillan

Recommended region(s): Trial in north and south Louisiana

Scab resistance: Excellent — no observed scab in 20 years in Mississippi orchard

Nut characteristics: Medium-sized (58 nuts/pound), 64% kernel, oblong and smooth; resembles a large Candy

Bearing age: Precocious — typically bears by Year 7

Alternate bearing tendency: Low — consistent production with little year-to-year variation

Notable strengths:

- Strong scab resistance; promising for no-spray orchards
- Very thin shell; easy to crack by hand
- Good kernel color and smooth appearance
- Upright young tree with good fall foliage retention
- Good taste

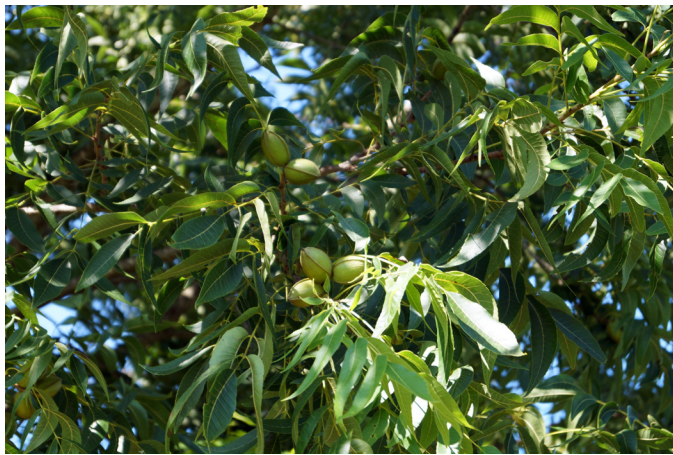
Potential concerns:

- Limited trial data in Louisiana
- Long-term performance and availability still being evaluated

Best uses:

- Worth trialing in low-input or organic-style orchards
- May be a good fit for growers seeking scab-resistant, easy-cracking nuts
- Suitable as a yard tree due to low management needs and upright form

Additional notes: Believed to be a seedling of Elliott, originally sourced from Fred Harrington in north Louisiana



Sterling nuts form in compact clusters on terminal shoots. Nuts are medium-sized, smooth and oblong, resembling a larger Candy. Photo by Max Draughn



Sterling nuts show uniform medium size and thin shells, which crack easily by hand. Kernel color is bright and attractive. Photo by Michael Polozola



Sterling nuts average about 58 nuts per pound with approximately 64% kernel, reflecting its high kernel percentage and easy-cracking shell. Photo by Michael Polozola



Sterling trees have an upright growth habit with strong scaffold limbs and good foliage retention, making them suitable for home orchards and landscape use. Photo by Max Draughn

4. Regionally Significant and Historic Cultivars with Limited Modern Relevance for Home Orchards

Several pecan cultivars have played an important role in Louisiana's orchard history — whether through widespread planting, local adaptation or early breeding efforts. While some may still be viable in commercial orchards with intensive spray programs, they typically fall short of modern standards for disease resistance, kernel quality or long-term performance in low-input home settings. This section preserves their legacy while clarifying why they are no longer broadly recommended for new plantings in residential or lightly managed orchards.

Caddo

- **Origin:** North Carolina
- **Strengths:** Once valued for early bearing, high kernel percentage and attractive nut appearance
- **Limitations:** Caddo is now highly susceptible to scab in humid climates, especially in south Louisiana. Kernel fill and nut quality decline rapidly without fungicide protection.
- **Current role:** It is no longer viable in no-spray or low-input home orchard settings. Caddo may still be found in older plantings or dryland sites in north Louisiana but is not recommended for new home plantings.

Cape Fear

- **Origin:** North Carolina
- **Strengths:** Once valued for early bearing and attractive nuts with good kernel percentage
- **Limitations:** Highly susceptible to scab in humid climates; commonly experiences alternate bearing and limb breakage
- **Current role:** No longer recommended for Louisiana home orchards due to disease pressure and structural issues

Candy

- **Origin:** Louisiana
- **Strengths:** Once widely planted in south Louisiana for its early bearing and decent nut quality in dry years
- **Limitations:** Highly susceptible to scab in humid conditions; no longer viable in no-spray settings
- **Current role:** May still produce in dry years in north Louisiana; generally not recommended for new plantings

Centennial

- **Origin:** Louisiana (historically recognized as the first grafted pecan cultivar)
- **Strengths:** Once valued for large nut size and early bearing
- **Limitations:** Highly susceptible to scab; inconsistent production and kernel quality
- **Current role:** Of historical interest only; not recommended for modern plantings
- **Notes:** Centennial holds a unique place in pecan history as the first known grafted cultivar, originating in Louisiana. While it played a foundational role in early orchard development, it is no longer viable for low-input or no-spray settings due to poor disease resistance and outdated nut quality.

Creek

- **Origin:** Texas
- **Strengths:** Once favored for early bearing, high yields and attractive nut appearance
- **Limitations:** Creek is highly susceptible to scab in humid climates. Its kernel fill and nut quality decline rapidly without fungicide protection. The tree form is often weak, with poor limb angles and breakage under heavy crop loads.
- **Current role:** It is no longer viable in no-spray or low-input home orchard settings. It is still found in some older plantings but not recommended for new plantings in Louisiana.

Curtis

- **Origin:** Florida
- **Strengths:** Early bearing; historically used as a pollinator
- **Limitations:** Very small nuts; poor scab resistance; high alternate bearing
- **Current role:** Not recommended for modern home orchards; included here for historical context

Desirable

- **Origin:** Mississippi
- **Strengths:** Large, attractive nuts with excellent kernel quality; once dominant in commercial orchards
- **Limitations:** Extremely scab-prone in humid climates; requires intensive fungicide programs
- **Current role:** Still found in older orchards and commercial settings with spray programs; not viable for low-input or home orchard use in Louisiana

Farley

- **Origin:** Florida
- **Strengths:** Historically grown in central and south Louisiana; known for early nut maturity and once considered scab resistant
- **Limitations:** Limited modern data; kernel quality is average; long-term resistance is uncertain
- **Current role:** May still be viable in low-pressure sites; not broadly recommended due to lack of recent performance data

Forkert

- **Origin:** Mississippi
- **Strengths:** Large, attractive nuts with high kernel percentage and good flavor
- **Limitations:** Highly susceptible to scab; not viable in no-spray or low-input settings
- **Current role:** Once planted in parts of the Southeast; no longer recommended for home orchards in Louisiana due to disease pressure

Frotscher

- **Origin:** Louisiana
- **Strengths:** Historically grown in south Louisiana for early bearing and moderate nut quality
- **Limitations:** Highly scab-prone and inconsistent in yield
- **Current role:** Rarely planted today; included for historical interest

Gloria Grande

- **Origin:** South Carolina
- **Strengths:** Historically valued for strong scab resistance and consistent yields in humid regions
- **Limitations:** Average nut quality by modern standards; alternate bearing can be an issue
- **Current role:** May still be of interest in low-input orchards; largely replaced by newer cultivars with better nut quality and similar disease resistance

Houma

- **Origin:** Texas
- **Strengths:** Known for early bearing and decent kernel quality
- **Limitations:** Highly susceptible to scab; not suitable for no-spray or low-input settings
- **Current role:** Of historical interest; not recommended for modern home orchards due to disease pressure

Mahan

- **Origin:** Mississippi
- **Strengths:** Extremely large nuts with thin shells; once prized for size and appearance
- **Limitations:** Very poor kernel fill; severe alternate bearing; extreme scab susceptibility.
- **Current role:** Not viable in low-input settings; included for historical context only

Melrose

- **Origin:** Louisiana
- **Strengths:** Historically grown in parts of the state; known for early bearing
- **Limitations:** Highly susceptible to scab; nut quality and yield consistency inferior to modern cultivars
- **Current role:** Not recommended for new plantings; included for historical context

MoneyMaker

- **Origin:** Louisiana
- **Strengths:** Historically planted for its early bearing and consistent production
- **Limitations:** Very small nuts with poor kernel quality; highly prone to scab.
- **Current role:** Of historical interest only; not suitable for modern home orchards

Moreland

- **Origin:** Louisiana (native selection)
- **Strengths:** Historically valued for moderate scab resistance and consistent production
- **Limitations:** Small-to-medium nuts with average kernel quality; limited adoption outside Louisiana
- **Current role:** May still be viable in some north Louisiana home orchards; not broadly recommended

Oconee

- **Origin:** Texas
- **Strengths:** Large, attractive nuts with good kernel percentage and early bearing
- **Limitations:** Highly susceptible to scab in humid climates; alternate bearing can be severe in low-input settings
- **Current role:** Still found in some older or commercial orchards; not recommended for home orchards in Louisiana due to disease pressure and maintenance needs

Pabst

- **Origin:** Mississippi
- **Strengths:** Once valued for nut appearance and early harvest
- **Limitations:** Highly scab-prone and inconsistent in kernel fill
- **Current role:** Not suitable for low-input systems; included for historical context

Picou 1 and Picou 2 (also known as Pointe Coupee selections)

- **Origin:** Louisiana (Pointe Coupee Parish)
- **Strengths:** Locally selected and named; may have historical or observational value
- **Limitations:** No formal trial data or published performance information
- **Current role:** Not recommended for new plantings due to lack of verified data; included for historical reference

Rome

- **Origin:** Louisiana
- **Strengths:** Historically planted for its large nuts and early bearing
- **Limitations:** Poor scab resistance and kernel quality; alternate bearing common
- **Current role:** Not recommended for home orchards; included for historical interest

Russell

- **Origin:** Mississippi
- **Strengths:** Historically used for early nut maturity and as a pollinator in older orchards
- **Limitations:** Medium nuts; poor kernel quality; high scab susceptibility
- **Current role:** Not viable for home orchards; included for historical interest

Schley

- **Origin:** Mississippi
- **Strengths:** High kernel percentage; thin shell
- **Limitations:** Extremely scab-prone; not viable in humid climates without sprays
- **Current role:** Still found in older orchards; not suitable for modern, low-input plantings

Stuart

- **Origin:** Mississippi
- **Strengths:** Once the dominant commercial cultivar in the Southeast; large nuts; good flavor
- **Limitations:** Now highly susceptible to scab; requires intensive spray programs
- **Current role:** Still found in older orchards; not viable for no-spray or low-input settings

Success

- **Origin:** Mississippi
- **Strengths:** Once popular for its large nuts and early bearing
- **Limitations:** Very susceptible to scab; inconsistent production
- **Current role:** Included for historical interest

Sumner

- **Origin:** Georgia
- **Strengths:** Historically planted in the Southeast for its large nuts and moderate scab resistance
- **Limitations:** Declined scab resistance in humid climates; late maturity increases risk of shuckworm and weather-related losses
- **Current role:** May still be viable in some north Louisiana home orchards; not broadly recommended due to disease pressure and alternate bearing in low-input settings

Teche

- **Origin:** Louisiana
- **Strengths:** Historically planted in south Louisiana; known for large nuts and early bearing
- **Limitations:** Highly susceptible to scab; inconsistent kernel fill
- **Current role:** No longer recommended due to disease pressure; included for historical reference

Van Deman

- **Origin:** Louisiana
- **Strengths:** Once used as a parent in breeding programs for its early bearing and nut size
- **Limitations:** Poor scab resistance and kernel quality; inconsistent performance
- **Current role:** Not recommended for planting; included for historical reference

5. Pollination Compatibility and Flowering Type

Pecan trees are monoecious, meaning they produce both male (pollen-shedding catkins) and female (nut-producing pistillate flowers) on the same tree. However, these flowers are not typically receptive at the same time — a phenomenon known as **dichogamy**. As a result, **cross-pollination between different cultivars is essential** for reliable nut set and high-quality kernel development.

Pecan cultivars are classified into two flowering types:

- **Type I (protandrous)**: Male flowers release pollen before female flowers are receptive.
- **Type II (protogynous)**: Female flowers are receptive before male flowers release pollen.

To ensure good pollination, home orchardists should plant at least one cultivar of each type. This is especially important in isolated plantings or areas with few surrounding pecan trees. In larger orchards, pollinators should be spaced no more than 150 feet apart, and ideally no more than three rows away from the main cultivar.

In home settings, where space is limited, choosing cultivars with overlapping bloom periods and complementary flowering types is critical. Fortunately, many of the core cultivars recommended in this guide pair well with each other.

Understanding Bloom Timing and Cross-Pollination

While flowering type (Type I or Type II) determines the sequence of pollen shed and stigma receptivity, **timing is just as important**. For successful pollination, the pollen-shedding period of one cultivar must overlap with the receptive period of another. This overlap can vary slightly depending on location and seasonal weather, which is why regional compatibility is emphasized in this guide.

In **north Louisiana**, cooler spring temperatures may delay bloom slightly, while in **south Louisiana**, earlier budbreak can compress the pollination window. The cultivars recommended in each region have been selected not only for disease resistance and nut quality, but also for their **reliable overlap in bloom timing** under typical Louisiana conditions.

How Many Cultivars Do You Need?

For most home orchards, **two cultivars — one Type I and one Type II — are sufficient** to ensure good pollination. If space allows, planting a third cultivar can improve pollination reliability and extend the harvest window. In larger plantings, pollinators should be spaced no more than 150 feet apart, and ideally no more than three rows away from the main cultivar.

In small yards or single-tree plantings, pollination may still occur if compatible cultivars are growing nearby, such as in neighboring yards, along fence lines or in older pastures. However, relying on unknown or distant trees is risky. For consistent production, it's best to plant at least one known pollinator on-site.

Special Considerations for Home Orchards

- **Legacy trees:** If you're planting near an existing mature pecan tree, try to identify its flowering type. Adding a complementary cultivar can improve its yield.
- **Space-limited sites:** Choose compact or slower-growing cultivars with compatible flowering types. For example, pairing Elliott (Type II) with Amling (Type I) works well in both north and south Louisiana.
- **Pollinator role:** Some cultivars, like Gafford or Woodman, may serve primarily as pollinators but still produce usable nuts. These can be valuable additions even if they're not your main crop tree.

Core pecan cultivar flowering types and pollination compatibility.

Core Cultivar	Flowering Type	Compatible Pollinators
Amling	Type I	Elliott, Gafford, Kanza, Excel, Lakota, McMillan, Avalon *
Elliott	Type II	Amling, Gafford (partial) , Jackson, Woodman, Syrup Mill
Excel	Type II	Amling, Elliot, Gafford, Lakota, McMillan, Woodman, Avalon*
Gafford	Type I	Elliot (partial) Excel, Lakota, McMillan, Syrup Mill, Avalon*
Jackson	Type II	Elliot, Excel, Kanza, Syrup Mill
Kanza	Type II	Amling, Gafford, Jackson, Syrup Mill, Woodman
Lakota	Type II	Amling, Gafford, Jackson, Syrup Mill, Woodman
Manda	Type II	Amling, Gafford, Syrup Mill, Woodman
McMillan	Type II	Amling, Elliot, Gafford, Kanza, Syrup Mill, Woodman
Syrup Mill	Type I	Amling, Elliott, Excel, Jackson (partial) Kanza, Lakota, McMillan
Woodman	Type I	Elliott, Excel, Jackson, Kanza, Lakota, McMillan, Syrup Mil, Avalon*

*Trial cultivar with promising compatibility; recommended for evaluation in low-input settings.

Trial pecan cultivar flowering types and pollination compatibility.

Trial Cultivar	Flowering Type	Compatible Pollinators
Adams 5	Type I	Elliott, Kanza, Excel, Lakota, McMillan, Jackson
Prilop	Type II	Amling, Gafford, Woodman, Syrup Mill
Sterling	Type I	Elliott, Kanza, Excel, Jackson Lakota, McMillan
Avalon	Type II	Amling, Excel, Gafford, Woodman, Syrup Mill

Pollination compatibility: North Louisiana.

Cultivar	Flowering Type	Compatible Pollinators
Amling	Type I	Elliott, Gafford, Kanza, Excel, Lakota, McMillan
Elliott	Type II	Amling, Gafford (partial), Jackson, Woodman, Syrup Mill
Excel	Type II	Amling, Elliot, Gafford, Lakota, McMillan, Syrup Mill, Woodman
Gafford	Type I	Elliot (partial) Excel, Lakota, McMillan, Syrup Mill
Jackson	Type II	Elliot, Excel, Kanza, Syrup Mill
Kanza	Type II	Amling, Gafford, Jackson, Syrup Mill, Woodman
Lakota	Type II	Amling, Gafford, Jackson, Syrup Mill, Woodman
Manda	Type II	Amling, Gafford, Syrup Mill, Woodman
McMillan	Type II	Amling, Elliot, Gafford, Kanza, Syrup Mill, Woodman
Syrup Mill	Type I	Amling, Elliott, Excel, Jackson (partial) Kanza, Lakota, McMillan
Woodman	Type I	Elliott, Excel, Kanza, Jackson Lakota, McMillan, Syrup Mil

Pollination compatibility: South Louisiana.

Cultivar	Flowering Type	Compatible Pollinators
Amling	Type I	Elliott, Gafford, Excel, Lakota, McMillan
Elliott	Type II	Amling, Gafford (partial), Woodman,
Excel	Type II	Amling, Elliot, Gafford, Lakota, McMillan, Woodman
Gafford	Type I	Elliot (partial) Excel, Lakota, McMillan
Kanza	Type II	Amling, Gafford, Woodman
Lakota	Type II	Amling, Gafford, Woodman
Manda	Type II	Amling, Gafford, Woodman
McMillan	Type II	Amling, Elliot, Gafford, Kanza, Woodman
Woodman	Type I	Elliott, Excel, Kanza, Lakota, McMillan, Syrup Mill

For more information on pecan care and orchard management, see other titles in the From Soil to Shell: Louisiana Pecan Series and the Louisiana Home Orchard: Pecans publication available through the LSU AgCenter.

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