

# CULTIVAR OPTIONS FOR GEORGIA ORCHARDS



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THE UNIVERSITY OF GEORGIA  
COLLEGE OF AGRICULTURAL &  
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# THERE IS NO PERFECT VARIETY

Look at strengths vs. weaknesses.

Trade-offs will need to be made.

- Scab resistance vs. nut quality
- Early production vs. stable production
- Proven performance vs. new varieties
- Scab resistance vs. aphid susceptibility



# Scab Resistance

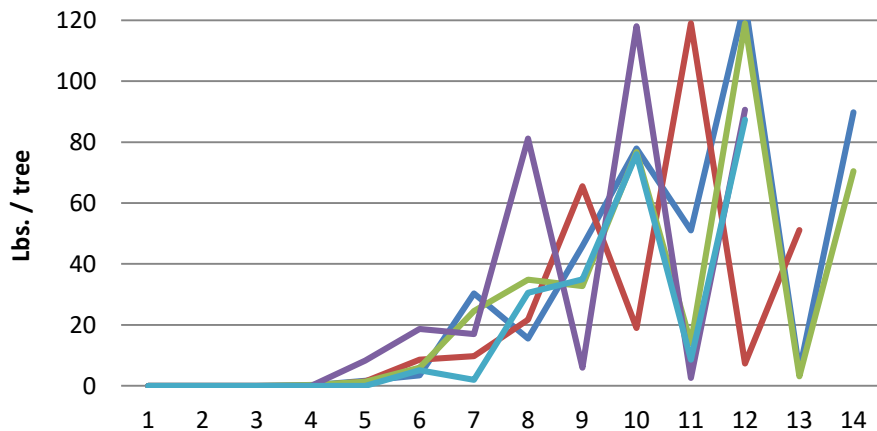
- A primary factor in cultivar choice.
- The resistance of a pecan cultivar will be influenced by the races present where it is grown.
- There tends to more scab pressure as you go south and east.
- Do not plant a susceptible cultivar if you can not spray.



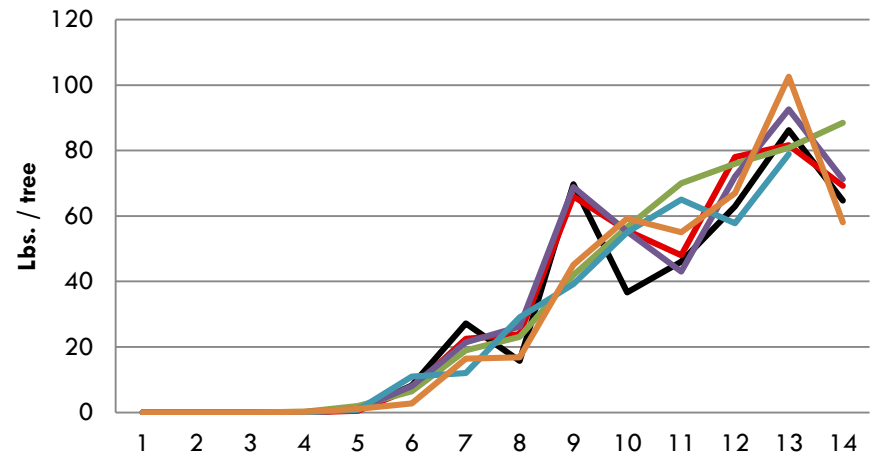
# Alternate Bearing

- Mature trees tend to bear alternately.
- Generally, precocious cultivars bear alternately more as mature trees.
- Will you summer shake or hedge to reduce your crop?

**Excel - Av. 26 lbs.**



**Zinner - Avg. 31 lbs.**



# Harvest Date

- Early nuts often have a price advantage.
- Will you be able to harvest the nuts before the crows?
- Will the trees be in a large solid block?
- Will the equipment be ready on time?
- What is the harvest date of your other cultivars?





# Nut Size and Quality

- Large nuts sell for a premium if quality is good.
- Large nuts often have more trouble filling.
- Smaller nuts often have to be sold in larger batches and marketed well to bring high prices. This can be difficult for a new/small grower.



# What not to base your selection on.

*“That’s all the nursery had left.”*

- Talk to the nursery at least a year in advance, trees are often in short supply.
- Some cultivars will not be widely available.



Its better to wait a year and get all your tree rows and irrigation ready than to plant a year earlier and live with a sub-optimal cultivar for decades!



# Pollination Types

Female Flowers  
(pistillate)



Protandrous (Type I) –  
Pollen produced first.

Protogynous (Type II) –  
Stigmas receptive first, then  
pollen is produced.

Male Flowers  
(catkins)





# Cultivars with Excellent Scab Resistance.

**Recommended**

Elliott

**Recommend Conditionally**

Excel

**Recommended for Trial**

Avalon

Lakota

**Pollinator (type I)**

Creek

Whiddon



# Avalon

47 nuts/lb.

54% kernel

- Excellent scab resistance.
- Good quality kernel.
- Harvest 1 week before 'Desirable'.
- Steady production.
- Black aphids a common pest.
- **Still a new cultivar.**

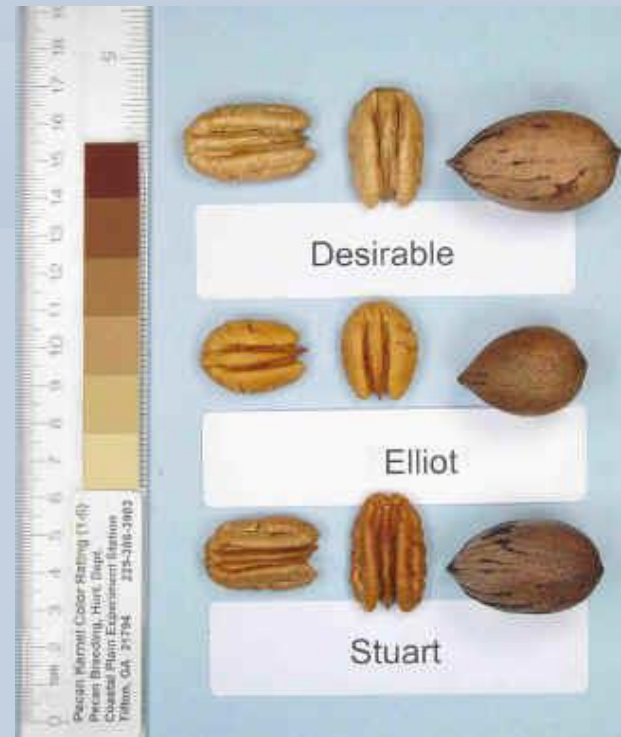


# Elliott

77 nuts/lb.

51% kernel

- Excellent resistance.
- Good quality kernel.
- Well-known to buyers.
- Alternates.
- Small nut size.
- Freeze damage in north.
- Yellow aphids a common pest.



# Excel

45 nuts/lb.

50% kernel

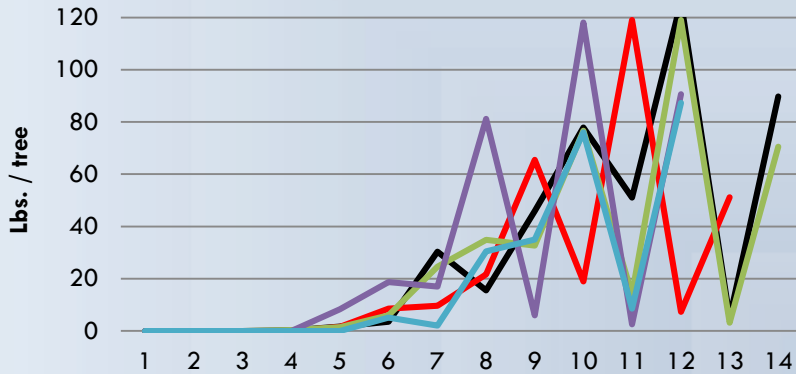
- Very thick shell limits % kernel.
- Excellent kernel color.
- Good nut size.
- Good resistance to most pests.
- Hard to shell.



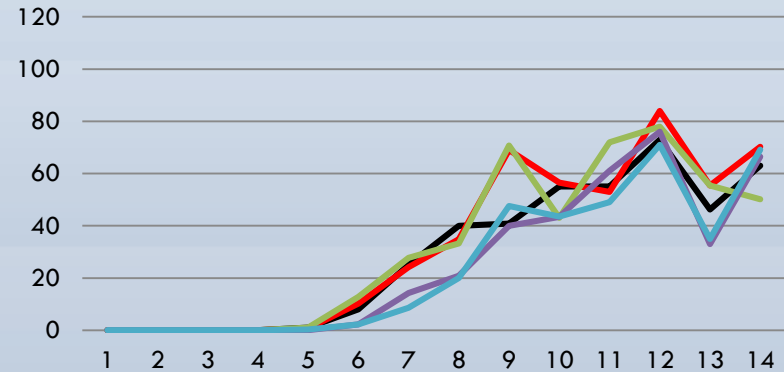


# 'Excel' Productivity 2002- 2015

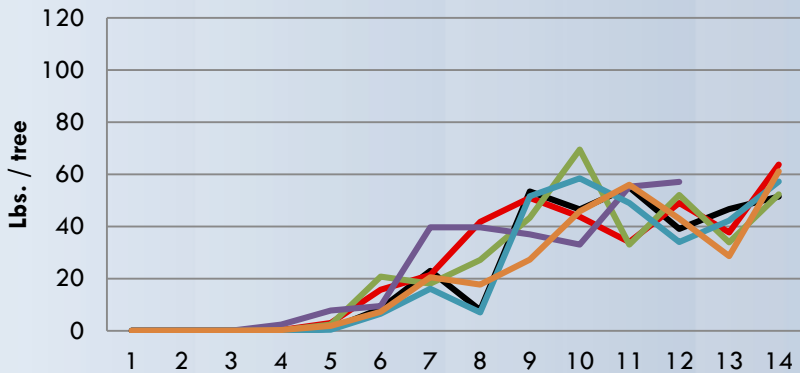
**Excel - Av. 26 lbs.**



**Stuart - Avg. 29 lbs**



**Desirable - Avg. 24 lbs.**



**'Excel' needs summer shaking in the ON year or it will alternate!**

# Lakota

50 nuts/lb.  
57% kernel

- 2007 USDA release. (Mahan x Major)
- Excellent scab resistance so far.
- Harvest end of Sept.
- Some variability in nut size.
- 51 nuts/lb. 57% kernel
- Some reports of low quality.
- Good tree vigor.
- **Will need crop thinning!!**



# Cultivars with Good Resistance

**Recommended**

Sumner

**Recommend Conditionally**

Creek

Cape Fear

**Recommended for Trial**

Whiddon



# Sumner

53 nuts/lb.

53% kernel

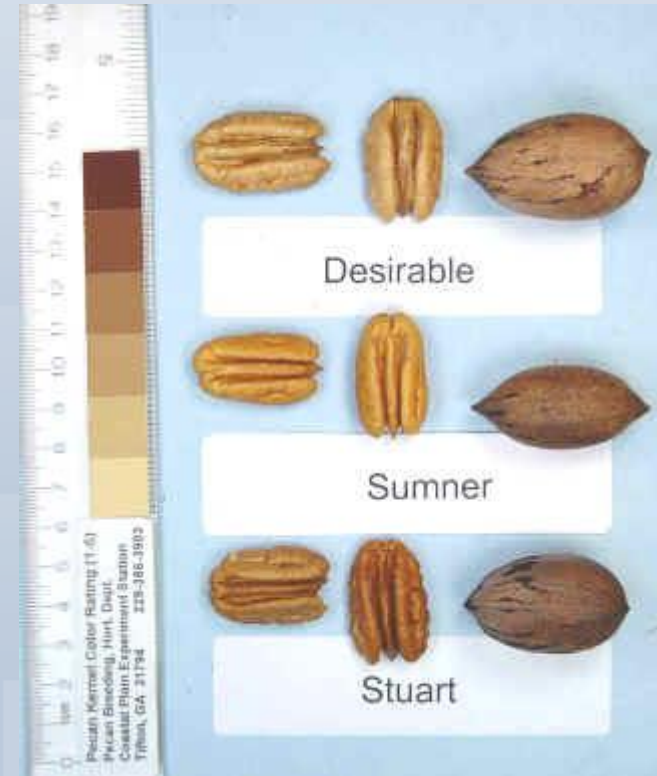
Good scab resistance.

Late harvest date.

Preferred by black aphids.

Can over bear as a mature tree.

Very popular in Georgia as a scab resistant cultivar.





# Creek

55 nuts/lb.

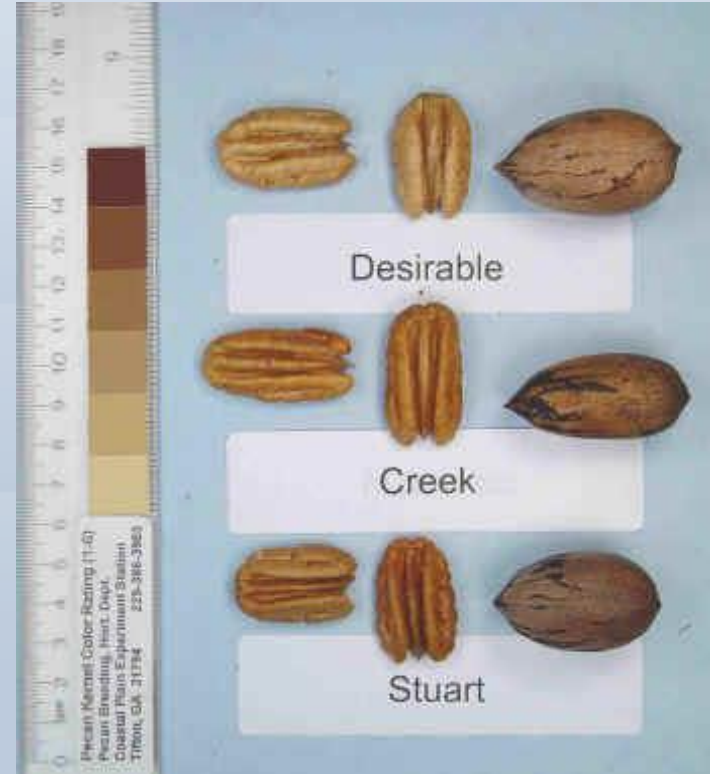
48% kernel

**Overloads badly**, needs crop thinning.

Upright strong tree.

Reported to bear well in competition.

Good resistance for a type I pollinator.



# Cape Fear

55 nuts/lb. 51% kernel

Precocious and needs crop thinning.

Scabs badly in some locations.

Susceptible to bacterial leaf scorch.

Late type I pollinator.



# Whiddon

40-42 nuts/lb. 53% kernel

2015 UGA Release.

Replacement for 'Desirable'.

Good scab resistance.

Should not need thinning.

New cultivar with limited testing.

Good resistant type I pollinator.



# Cultivars with Mediocre Resistance

**Recommended**

**Recommend Conditionally**

**Recommended for Trial**

Zinner



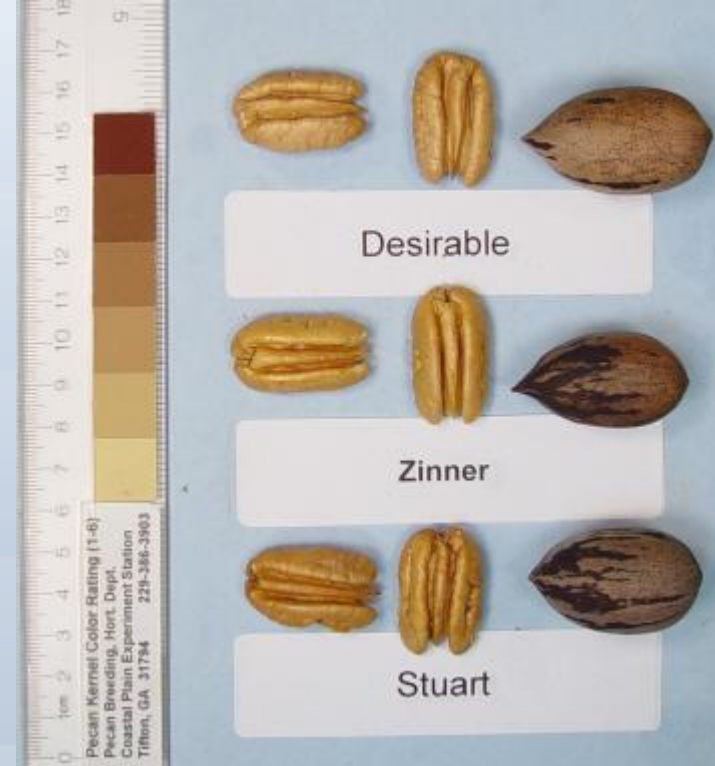


# Zinner

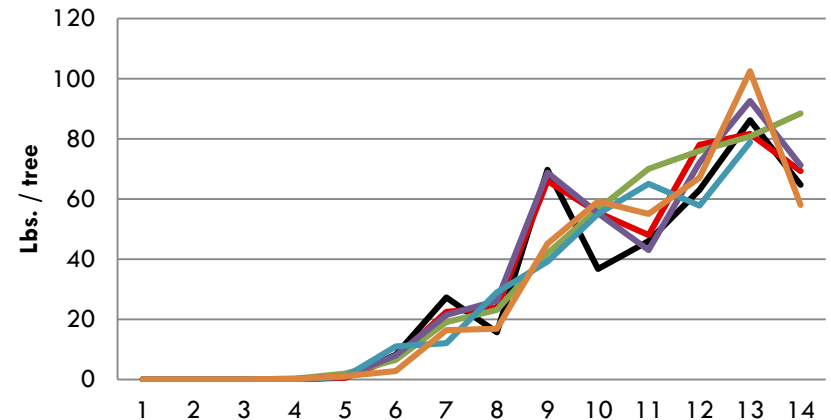
48 nuts/lb.

56% kernel

- Good size with excellent quality.
- Low scab resistance.
- Consistent production year to year.
- Preferred cultivar for black aphids.



**Zinner - Avg. 31 lbs.**



# Cultivars with Low Scab Resistance.

**Recommended**

Pawnee

**Recommend Conditionally**

Desirable

**Recommended for Trial**



# Desirable

44 nuts/lb.

53% kernel

- #1 Cultivar in Georgia
- Extremely susceptible to scab, must be sprayed often.
- Consistent bearing from year to year.
- Easier to grow in middle Georgia, **do not plant in south Georgia.**
- I would plant 'Whiddon' or 'Zinner' instead.

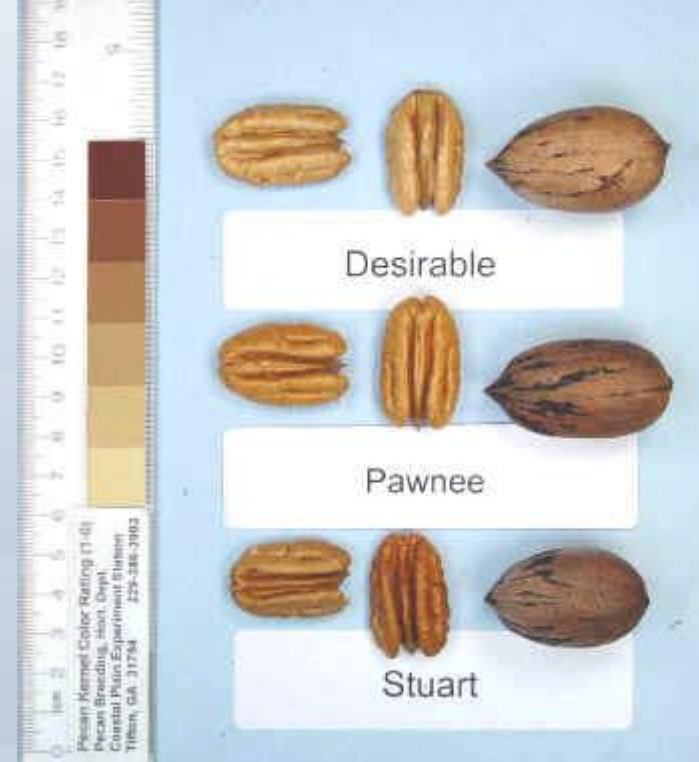


# Pawnee

56 nuts/lb.

54% kernel

- Ready to shake in Mid-September.
- Wants to produce a good kernel.
- Will need to shake twice.
- Susceptible to scab.
- Easier to grow in middle Georgia.
- Veining and spotting is common in some years.



Dr. Patrick Conner



# My picks for small low-input plantings.

Avalon – trial

Whiddon - trial

Excel – must crop thin

Sumner





# My picks for sprayed plantings.

Avalon – trial

Whiddon - trial

Cape Fear

Pawnee

Sumner

Zinner - trial



# Where to get more information.

Pecan Grower's Handbook.

Pecan Breeding Website : Google for 'UGA Pecan Breeding'

