

Factors to consider when choosing a pecan variety



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There is no perfect variety

Look at strengths vs. weaknesses

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



Variability of Scab Resistance

- The scab fungus is made up of many races, most of which can only infect a small number of cultivars.
- The resistance of a pecan cultivar will be influenced by the races present where it is grown.



Levels of Resistance

Excellent Resistance - Good resistance in most locations.
Only a few sprays needed.

Good Resistance - Good resistance in most locations.
Can miss a few sprays.

Mediocre Resistance - Spotty resistance, better than
'Desirable' in most locations, equal to 'Desirable' in others.
Need a full spray schedule.

Low Resistance - Scabs in all locations, can be difficult to
control even with full spray schedule.

Resistance tends to decrease over time

Very Resistant

‘Elliot’

‘Sumner’

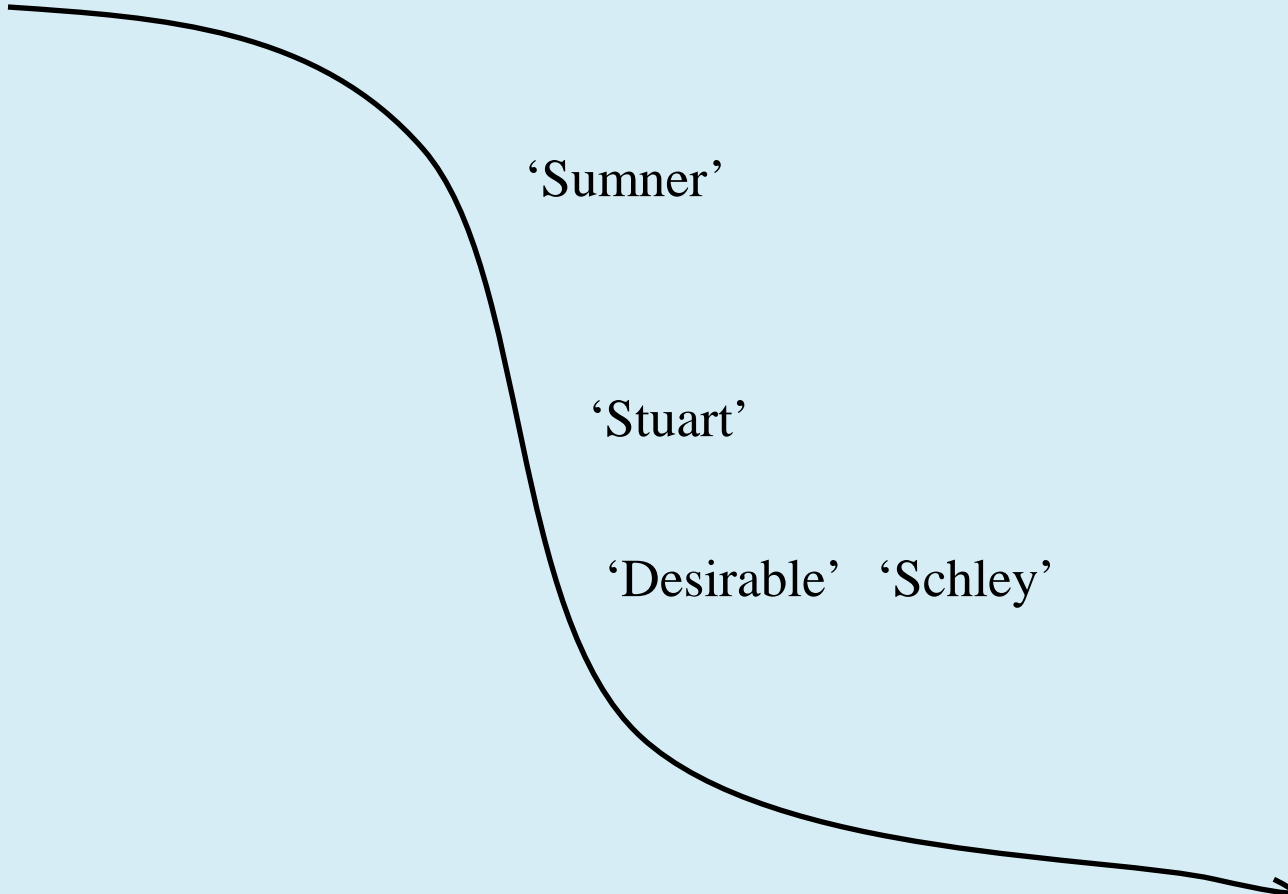
‘Stuart’

‘Desirable’ ‘Schley’

Very Susceptible

‘Alley’

‘Delmas’



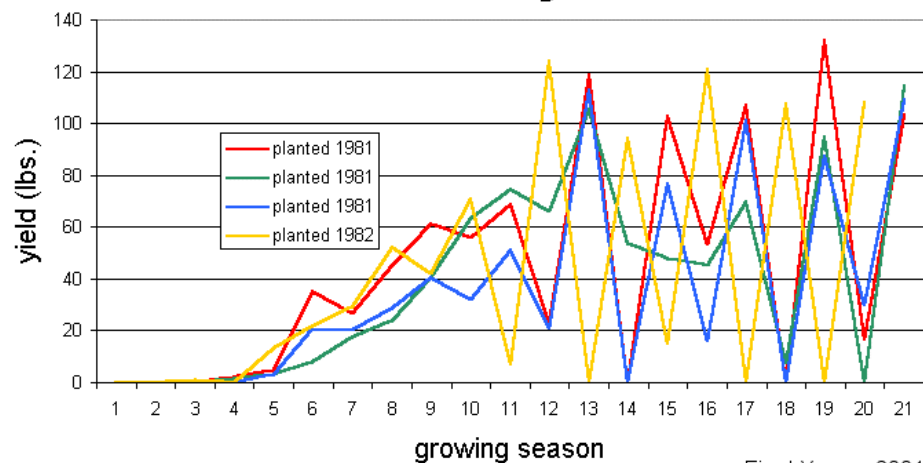
Weighing the Importance of Scab Resistance

- Are you controlling scab now?
- What site are you planting?
 - Air drainage
 - Geographical location
 - Orchard access during rainy periods
- Will you spray your acreage in a timely fashion?

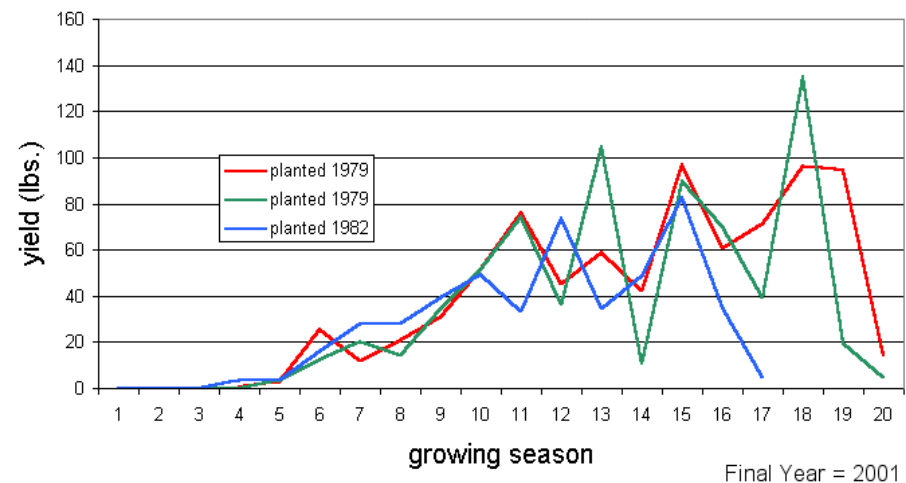
Alternate Bearing

- Mature trees tend to bear alternately.
- Generally precocious trees alternate more as mature trees.

Candy



Caddo



Alternate Bearing Index (I)

Alternate bearing index of some popular cultivars.

Cultivar	I Value
Caddo	.32
Cape Fear	.62
Desirable	.40
Elliot	.68
Forkert	.53
Gloria Grande	.19
Kanza	.72
Kiowa	.65
Money Maker	.68
Oconee	.37
Pawnee	.61
Sioux	.64
Stuart	.47
Sumner	.56

Lower values = More stability

Alternate Bearing

- Will you keep the tree as a mature tree or thin it out?
- Will you summer shake to reduce your crop?
- Will you thin the orchard to keep good sunlight levels?

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 solid large block?
- Will the equipment be ready on time?
- What is the harvest date of your other cultivars?
 - Something has to be last.

Nut Size and Quality

- Large nuts sell for a premium if quality is good.
- Large nuts often have more trouble filling.
- It may be easier to sell smaller nuts if you are producing a larger number and marketing them well.
- Some small nuts like 'Elliott' bring a good price.



Pollination Type

- Protandrous – Type I – Pollen produced first.
- Protogynous – Type II – Stigmas receptive first then pollen produced.

Pollination and Orchard Layout

- Pecans need cross pollination to set a good crop.
- Best to have at least 2 pollinators.
- Should be within 150 ft of a pollinator.
 - Pollinators planted no more than 4 rows apart
or
 - every 5th tree in every 5th row.

Pollination Charts

Table 1. Pollination chart for pecan varieties.

Cultivar	April											May															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13
Caddo						■	■	■	■	■	■																
									■	■	■	■	■	■	■	■	■	■	■	■							
Candy																	■	■	■	■	■						
Cape Fear								■	■	■	■	■	■	■													

Pollen Shed
 Pistil Receptivity

Other Factors

- How much risk are you comfortable with?
- What cultivars do you have now?
- How many trees am I planting?
- How will I sell the crop?



What about productivity?

- Very important but difficult to estimate.
- Bad ones are eliminated, but difficult to rank the recommended varieties.
- Talk to other growers.

What not to base your selection on.

“That’s all the nursery had left.”

Ratings of varieties

- Recommended
 - Most commonly used.
- Recommended for certain situations
 - Must be carefully managed.
- Recommended for trial
 - Look good but have limited testing.
- Not recommended
 - Have one or more fatal flaws.

The background of the slide is a close-up photograph of pecan bark. The bark is highly textured, showing deep vertical and diagonal fissures. The color is a mix of light green, grey, and brown, with some darker spots and a slightly glossy sheen in some areas.

Visit our Website: <http://sacs.cpes.peachnet.edu/pecan/>
Google “Georgia Pecan Breeding”

The Tifton pecan variety tests are supported by the
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