





# **Machine Pruning (or Hedging) Bearing Pecans**

**Thomas G. Stevenson, Orchard Management  
Services , Albany, GA**

**A preliminary report of viability as a  
pecan management tool in the  
Southeastern United States**

**Hedging is not a  
“silver bullet”!**



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- **Then why prune/hedge???**
  - Crowding & shading reduce yield, so you must balance shade and sunlight.
  - Possible reduction of alternate bearing
  - Higher tree density and size containment = higher yields.

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- **Tree thinning or pruning**
- **Pruning options**
  - **Hand**
    - Selective & usually expensive
  - **Machine (hedging)**
    - Indiscriminate (maybe a good thing) & usually cheaper

# Hedging - *Notes*

- **It is a “program”, not a one shot quick fix.**
- **If you are not a cutting edge manager, leave it alone.**
- **If you are a low input manager, tree removal is best.**





# Hedging

- **Can maintain sunlight in higher density plantings**
- **May allow better utilization of sunlight with perhaps the light guideline being closer to 25 or 30% of orchard floor open instead of the old 50%.**
- **Allows more uniform tree size/shape to increase spraying efficacy.**
- **Appears to mitigate alternate bearing to some degree**
  - **More testing needed.**
- **Likely varietal differences (more testing).**
- **Need at least 5 more years to confirm program's benefit.**

A yellow tracked loader is positioned in a field of bare trees. The loader is facing right, with its long boom extended upwards. The ground is covered in green grass, and the trees are without leaves, suggesting a late autumn or winter setting. A red banner with white text is overlaid on the image.

**OUR TRIALS AND  
PRELIMINARY RESULTS**

# “Baby Bear” - Gillison Tractor Mounted



**5 year old Desirable 30' x 30'**



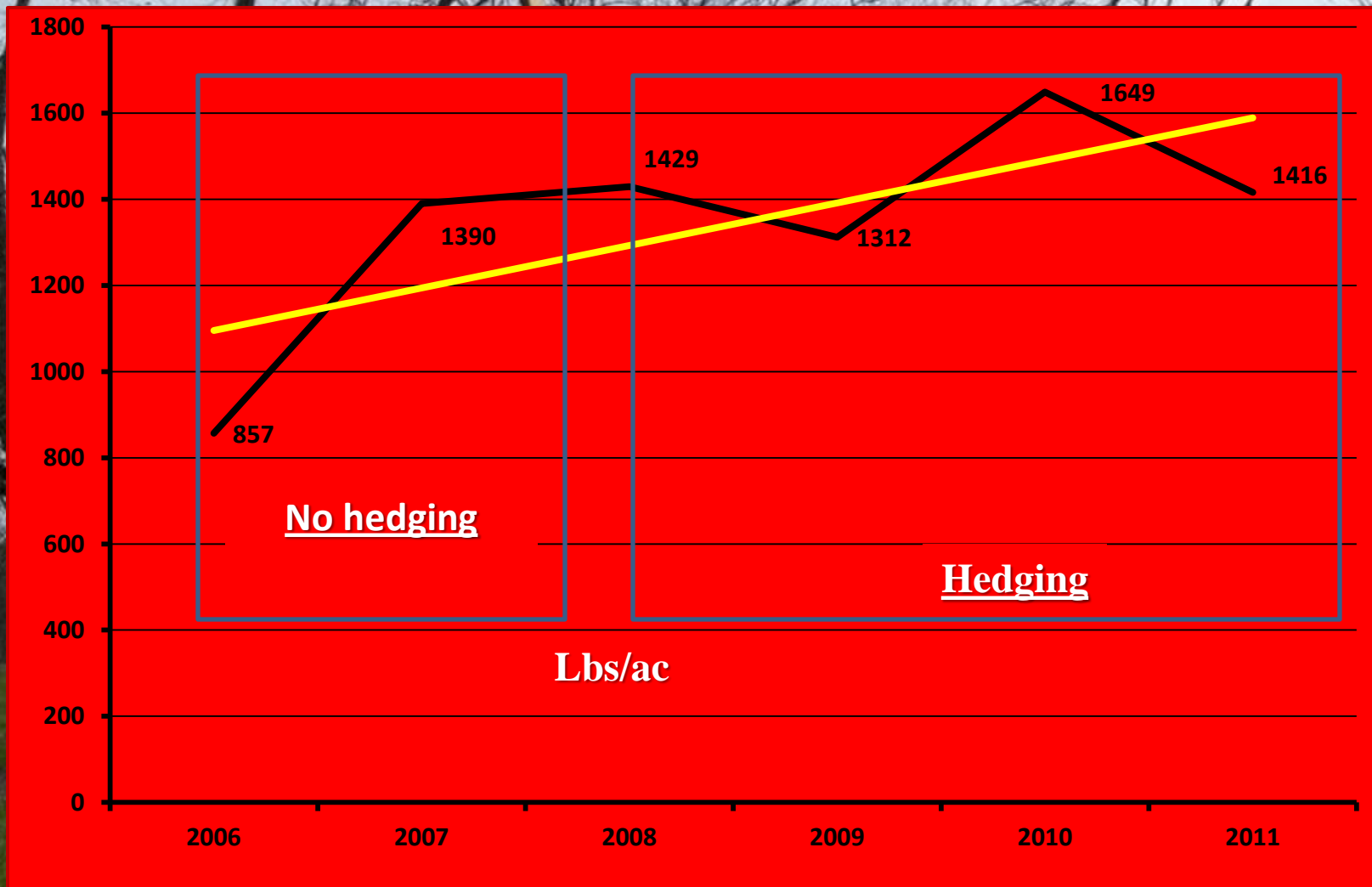
# “Mama Bear” – TOL 2000



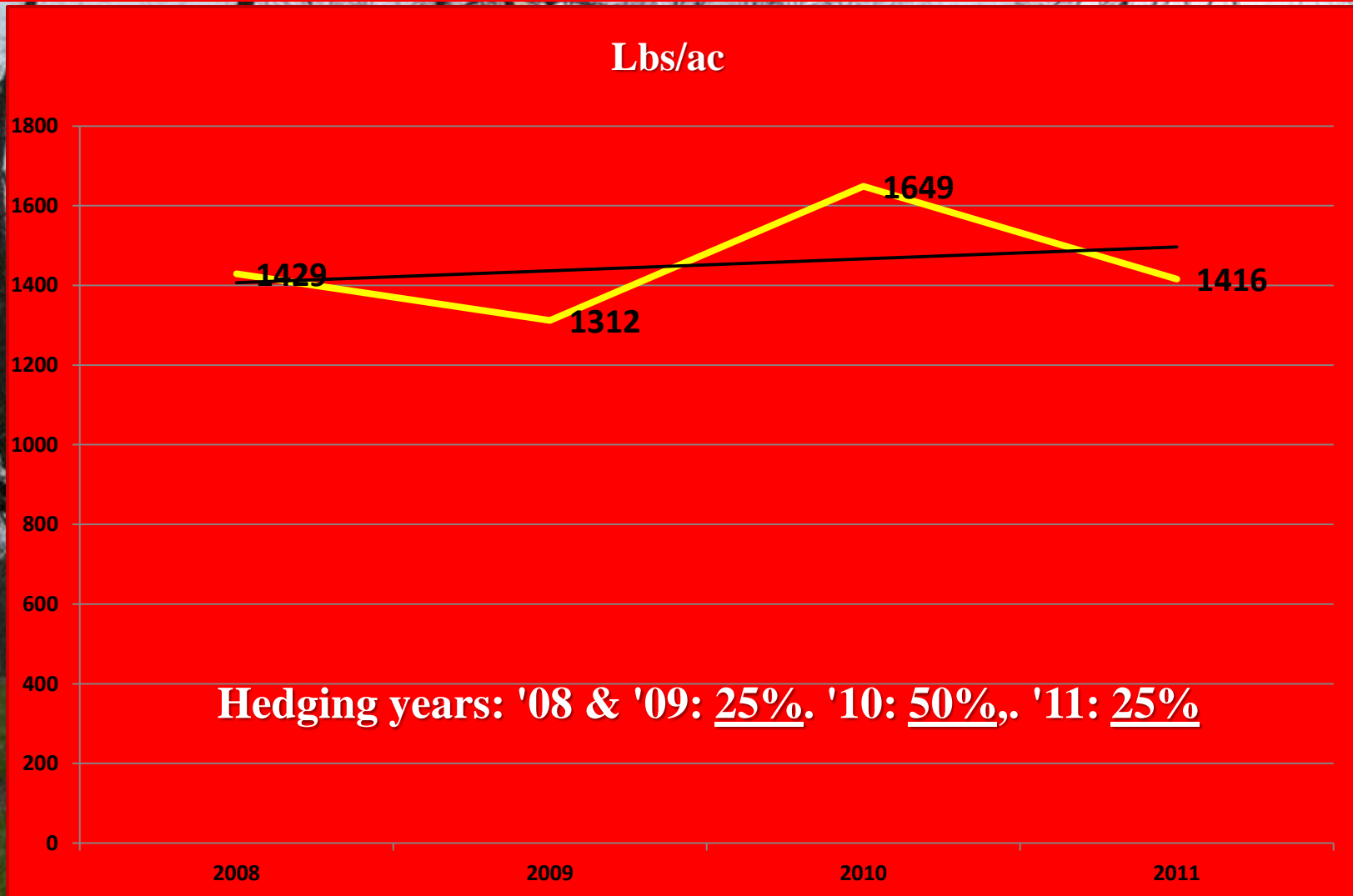
**13 year old Caddo 48' x 48'**



# CADDO – 13 years old 20 trees/ac (4 year cycle)



# Caddo – the hedging years





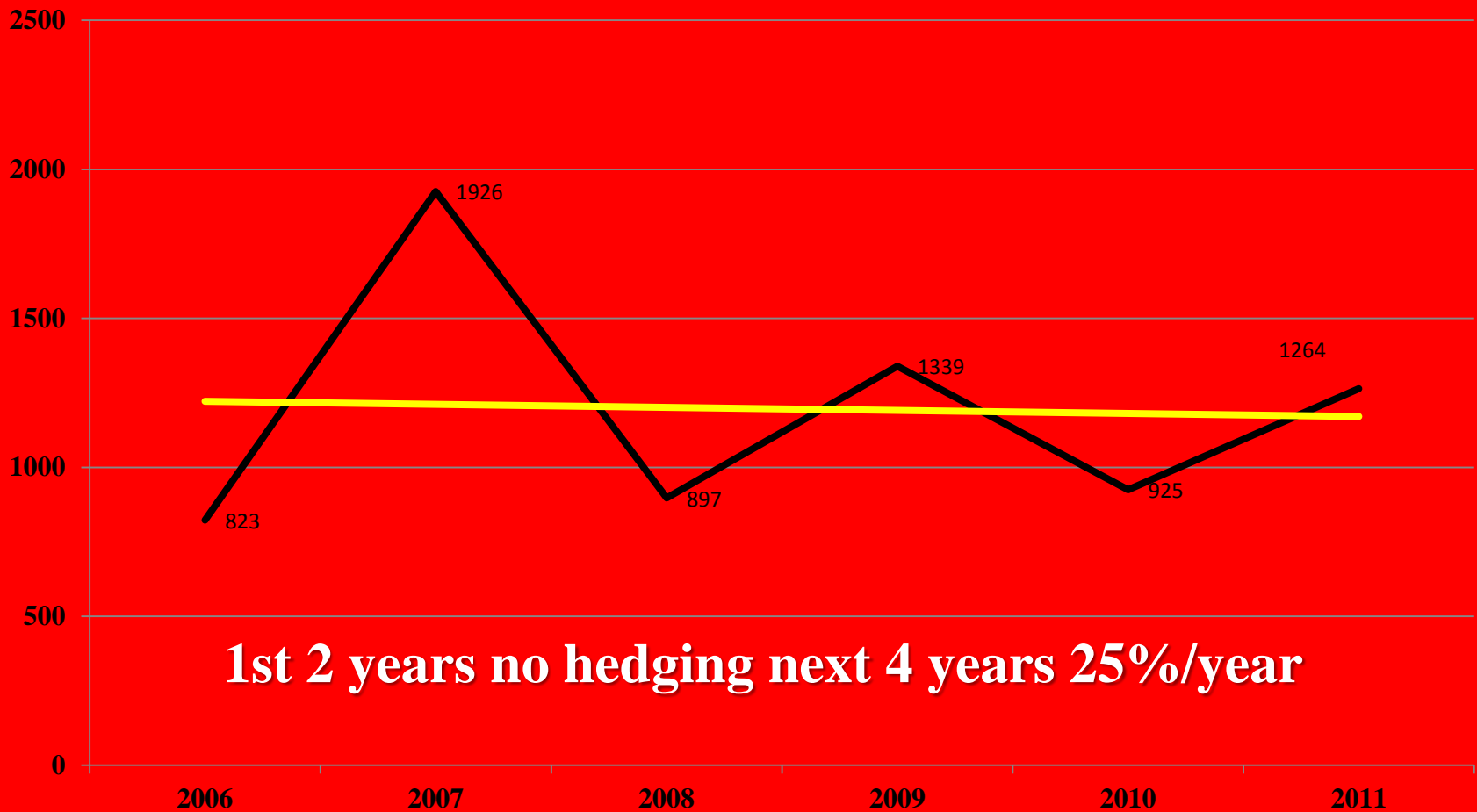
# Papa Bear – 325 Cat Excavator with “shop made” saw boom – 8 x 36” blades



**25 year old Cape Fear 60' x 60' with  
Creek Interplant - 30' x 60'**

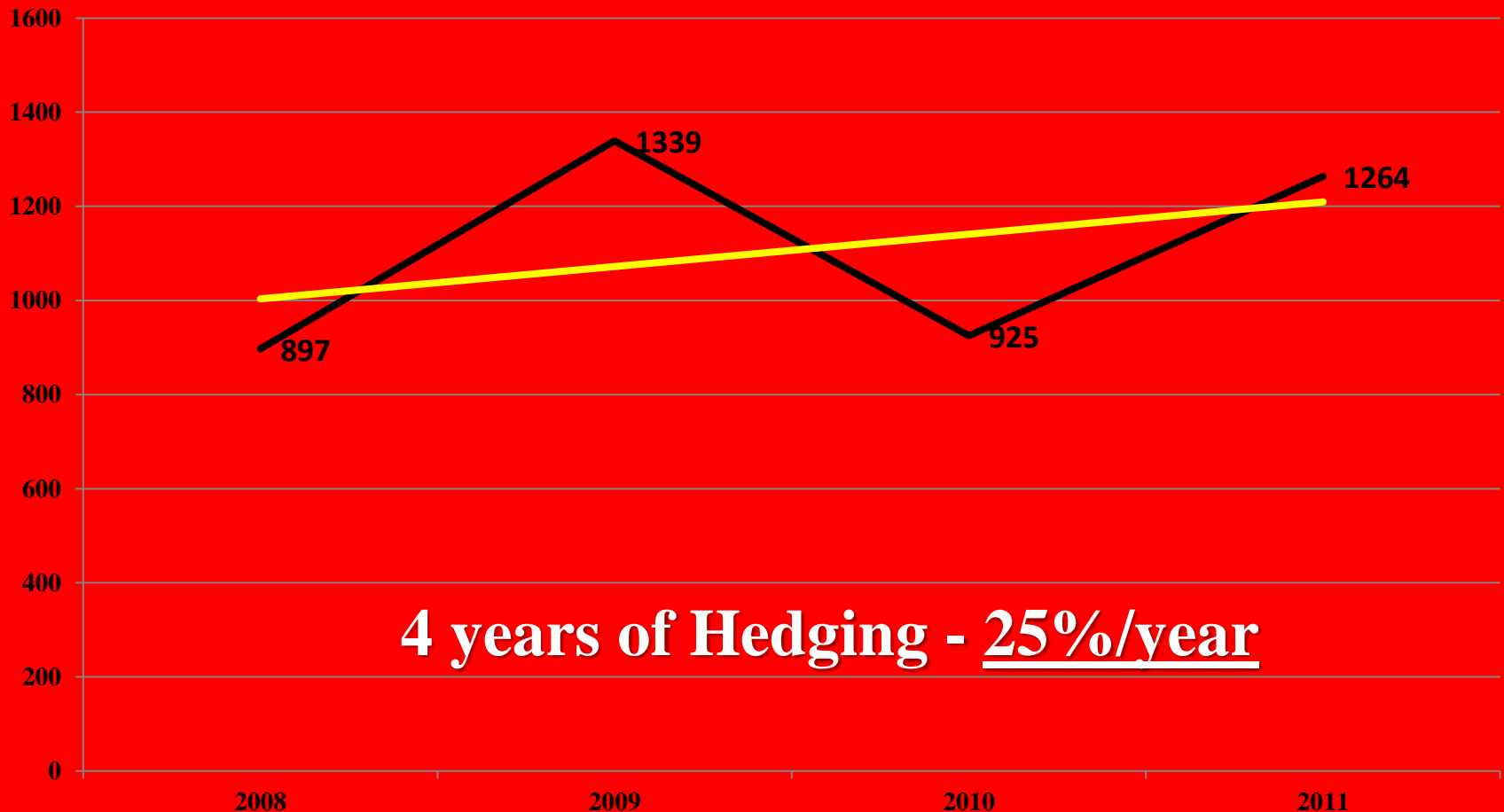


# Cape Fear 30 years old – 12 trees/ac



# Cape Fear 30 years old – 12 trees/ac

Lbs/ac



4 years of Hedging - 25%/year

# 15 Year old Desirable 30' x 30' “Before”



# 15 Year old Desirable 30' x30' “After”



**30 year old Desirable 40' x 40'**  
**“Before”**



**30 Year old Desirable 40' x 40'  
“After”**





# Alternate rows of Desirable and Stuart 30' Rows – After 1st year of 2 year cycle

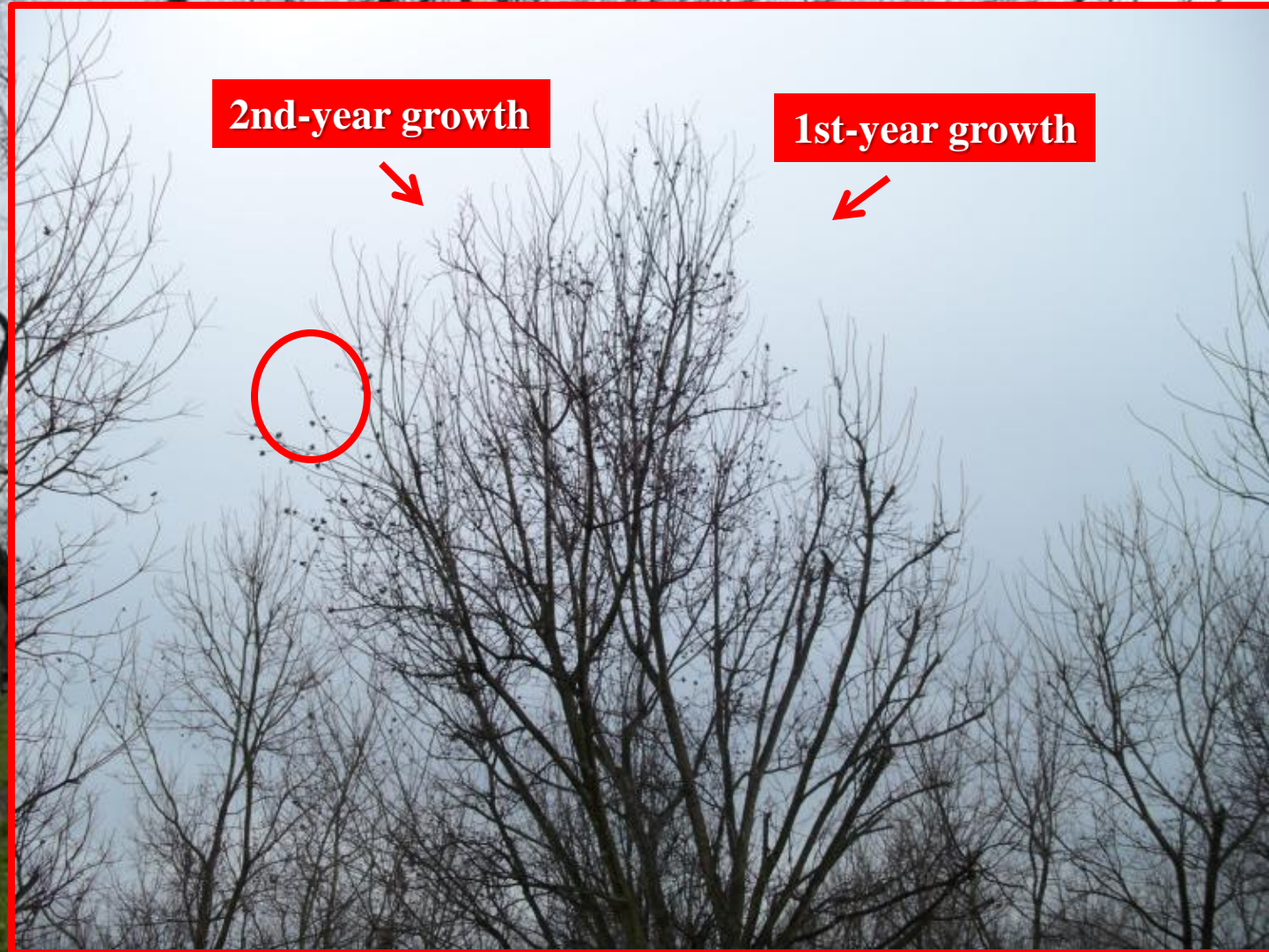


1<sup>st</sup> year shoot growth

# Alternate rows of Desirable and Stuart 30' Rows – After 2<sup>nd</sup> year of 2 year cycle



# Tree growth - each side cut alternate years



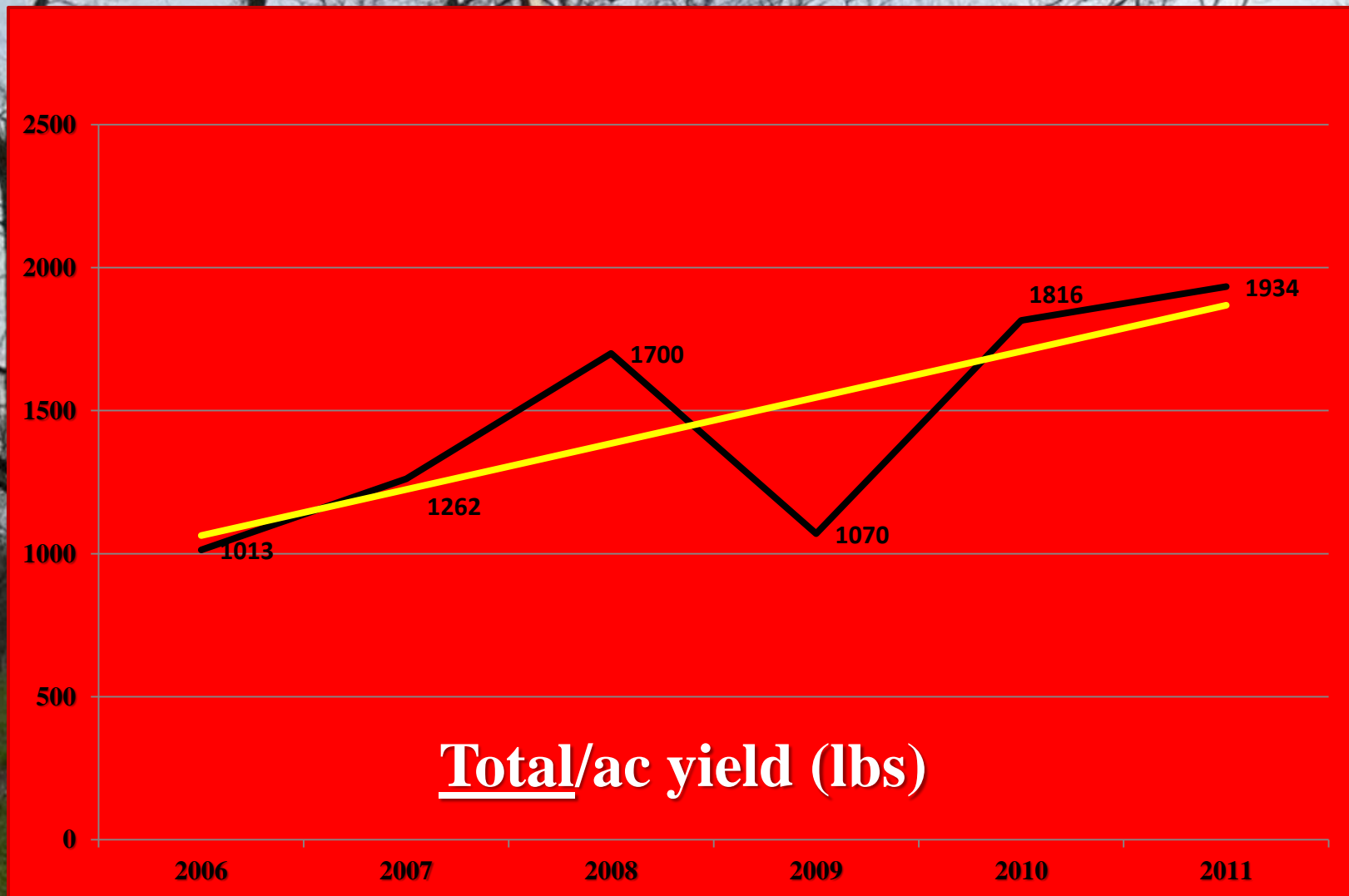
# Increased interior Fruiting



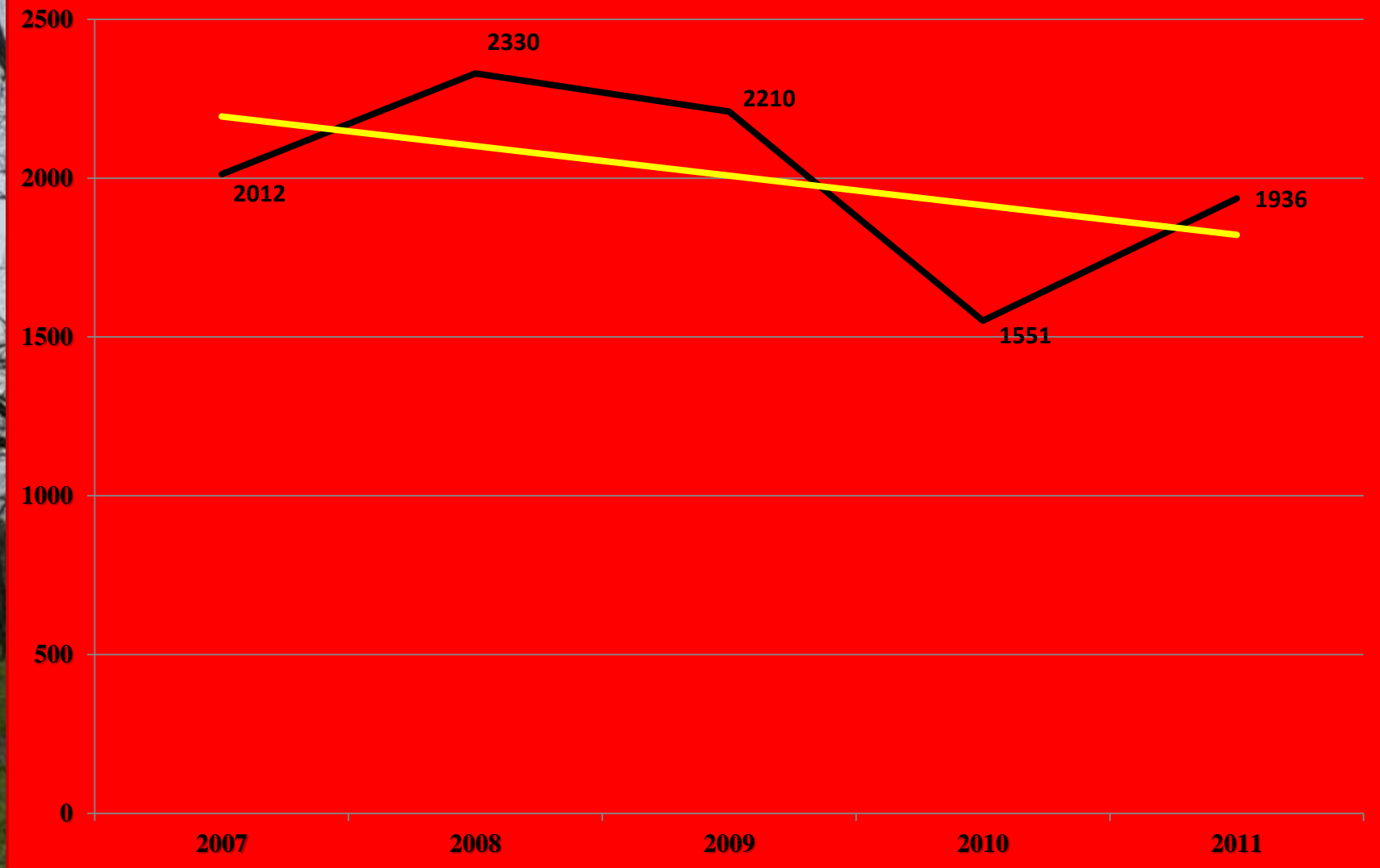
# Multiple fruiting spurs on tree interior



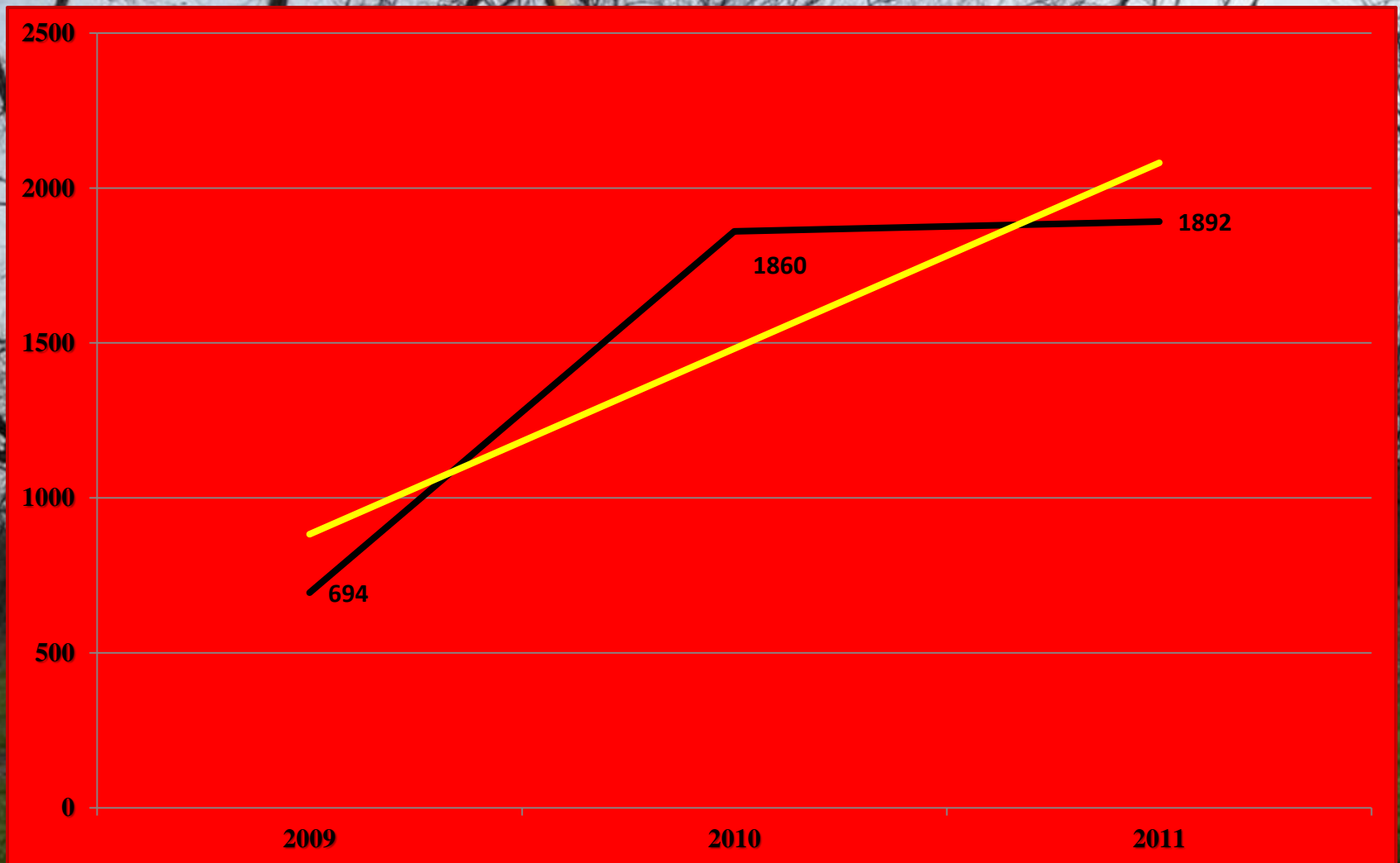
# Narrow Row Stuart (10 ac) & Desirable (32 ac)



# Narrow Row Stuart



# Narrow Row Desirable





**25 year old Desirable on 3 year cycle – 48' x 48'  
( 20 trees per acre)**



**Desirable 1 year after hedging**  
**No fruit on new growth – 1000 #/ac – 20 trees per acre**



**Desirable (20 trees/ac) – 2nd harvest after hedging – 1900 #/ac**

**Some fruiting on 2<sup>nd</sup> year wood**

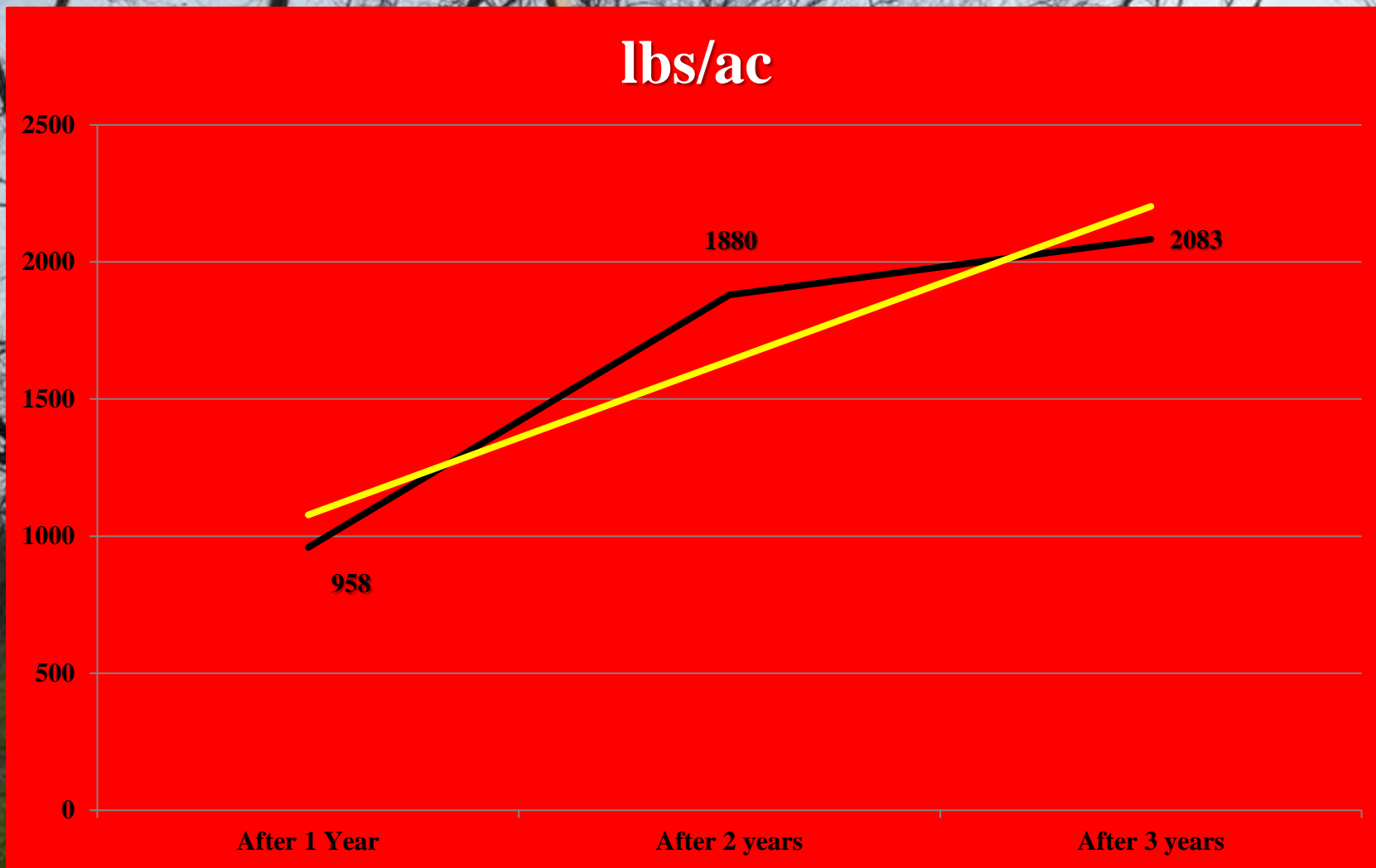


**Desirable (20 tres/ac) - 3<sup>rd</sup> harvest after hedging  
– 2200 # / ac**

**Good fruiting on new wood**



# Desirable 3 year hedging cycle



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- **If you hire custom hedging make sure they can keep your program up.**
- **Maintain your patience. Success, does not happen overnight.**
- **Hedging very large trees is slow and costs \$\$\$\$\$\$\$\$\$\$.**

**Most important – start early!**



**This is when you want to start !!**



**Not here!!**



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