

Managing Black Walnut





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Why Grow Black Walnut?











Wood Products



Rich, brown color



Novelty items



Lumber products







Gunstocks

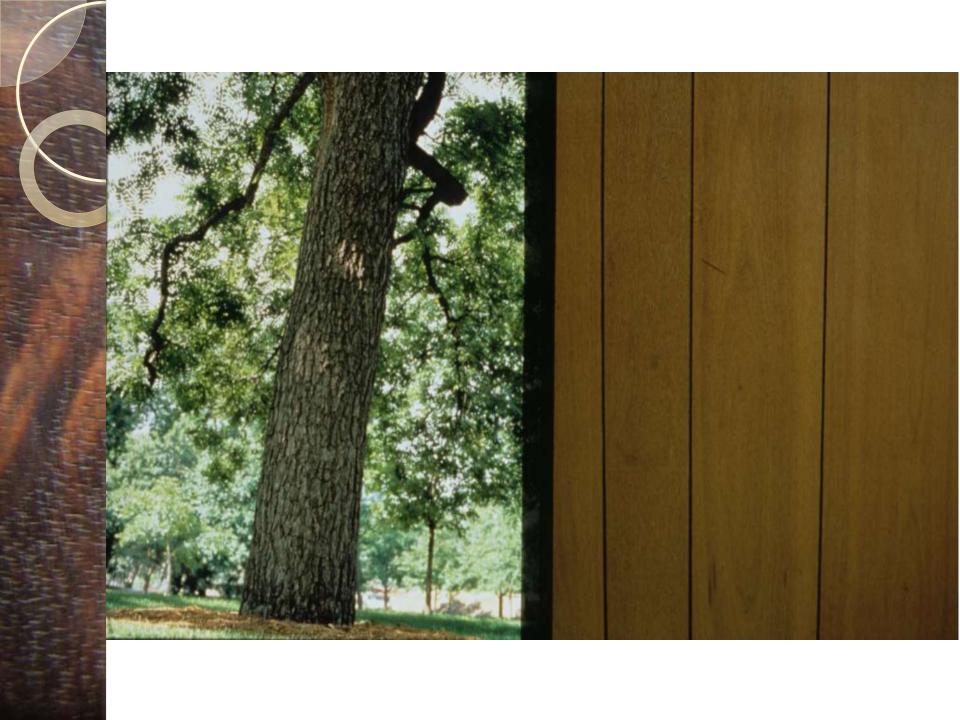






Veneer







Silvopasture





Nuts



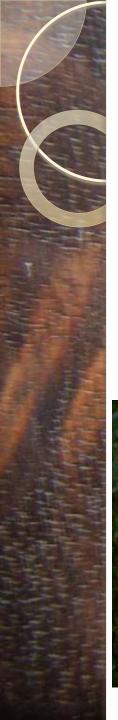




People Food







Wildlife Food





Beauty











Chambered pith



Leafs out late, drops leaves early



Yellow fall foliage







Plant small bottomland fields & slopes

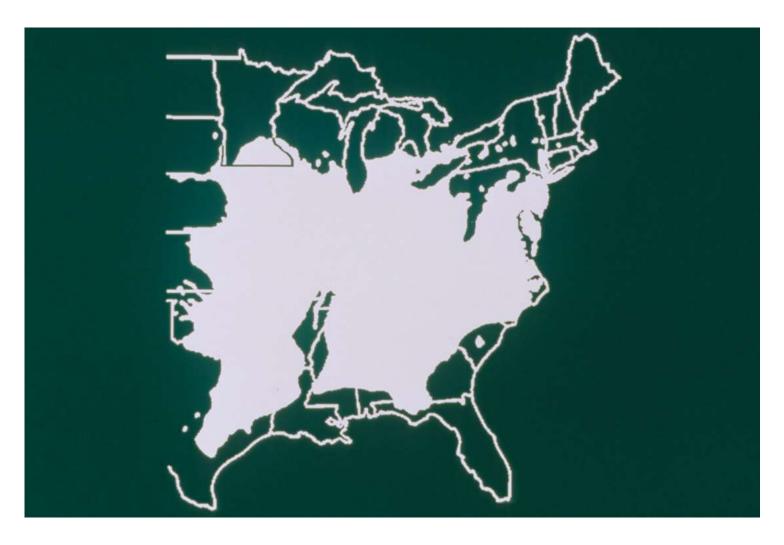


Biodiversity?



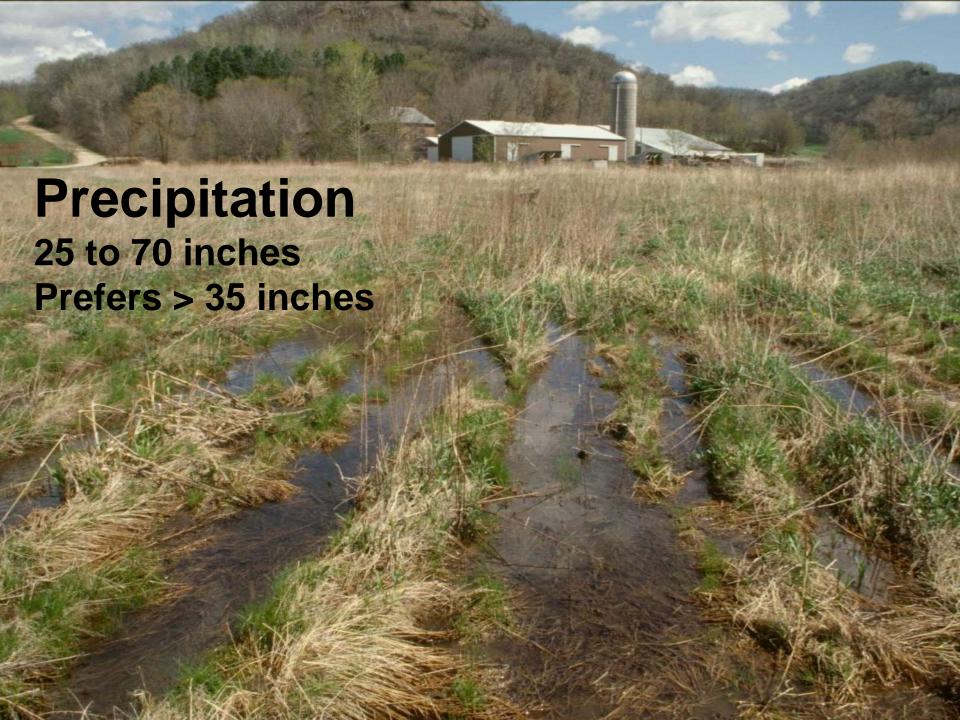


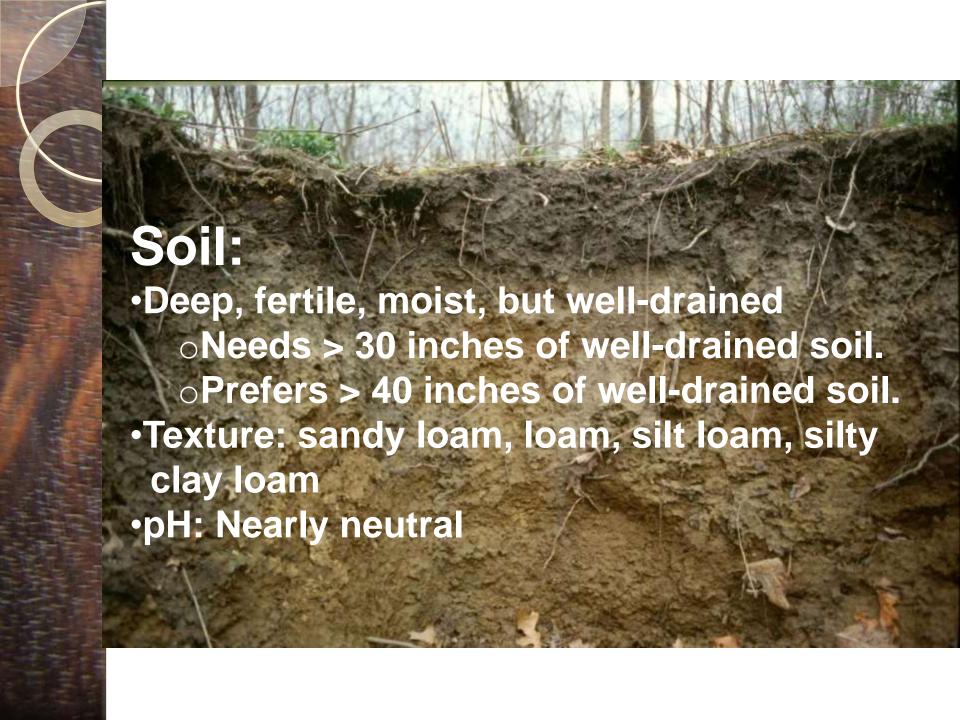
Where to Grow Walnut



Natural Range







Landscape Position

Prefers:

- •coves
- stream bottoms (alluvial soils)
- •lower portion of north- or east-facing slopes





Airflow

- Good airflow, but not windy sites.
- Exposed uplands okay if walnut is interplanted with another species for wind protection.





Sandy or dry ridges and slopes



Avoid Frost Pockets

Where airflow is minimal and cold air could settle undisturbed.

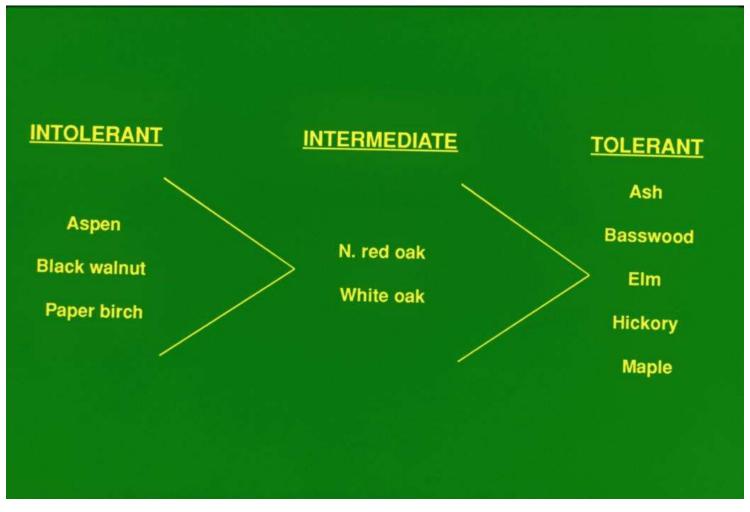
- Narrow valleys with steep adjacent side slopes
- Bottomland sites lower than surrounding landscape





Shade Intolerant

Plant only in forest openings or open fields.





Walnut grows well with...

Kentucky coffeetree

Yellow-poplar

White ash

Red oak

Basswood

Sugar maple

Slippery elm









Juglone

Found in:

- Leaves
- Bark
- Nut husks
- Roots





Toxic to:

- Tomatoes
- Paper birch
- Red pine
- White pine
- Scotch pine
- Apple
- Others...



Questions?



Planting Black Walnut

Site Selection Considerations

- Soils must be suitable for longterm growth
- Soils information NRCS offices and NRCS Web Soil Survey
- Walnut Suitability Index
- Consult Local Forestry Experts
- Get soils tested for pH and nutrients





Why are you planting walnut?

Timber Production

- Spacing 10' X 10' or closer
- Nurse trees
- Mixed species
- Genetically selected stock
- Locally adapted stock
- www.htirc.org





Why are you planting walnut?

- Nut crop
- Selected tree lines for nut quality/quantity
- High quality walnut soils
- Wide spacing 25 to 30 feet at planting
- University of Missouri
 Center for Agroforestry,
 Growing Black Walnut
 for Nut Production





Why are you planting walnut?

- Walnut Agroforestry
- Spacing and design depends on desired cropping plan
- Silvopasture
- Alley cropping
- Windbreaks/shelterbelts
- Forest farming
- University of Missouri
 Center for Agroforestry





Preparing your site to plant

- Start the summer before if spring planting
- Control competing plants







Planting

- Typically spring planting for bareroot stock
- Plant early in spring to take advantage of spring rains and a full growing season
- Keep seedlings cool and moist until planted







Mechanical Tree Planting





Planting Nuts

- Collect in the fall
- Easier to handle when de-husked
- Fall or spring planting
- Float seed to test
- Stratification
- Seed predators





- Check seed quality
- Protect seed from predators







Sprouted seed plantings

- Stratified
- Spring planting
- Protect from seed predators









Questions?



- Thinning helps us retain the best trees and grow them at a desired rate.
- "A few fat carrots or lots of skinny ones"

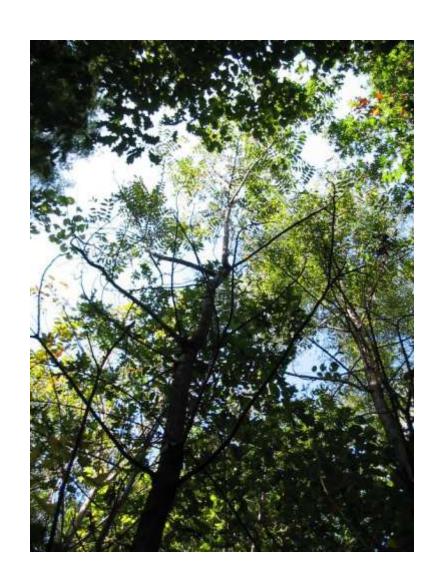




Thinning Walnut Stands

Natural stands

- Spend some time with your forester
- Identify crop trees
- Kill grapevines in or near crop trees
- Create growing space





Thinning Walnut Stands

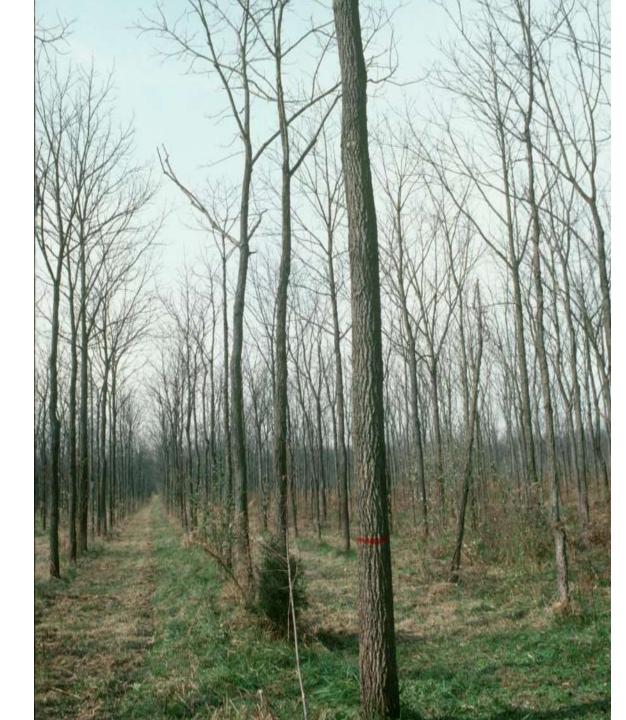
Plantations

- Early competition to encourage straight stems and small side limbs
- Thinning to maintain even, vigorous growth





Select and thin around crop trees



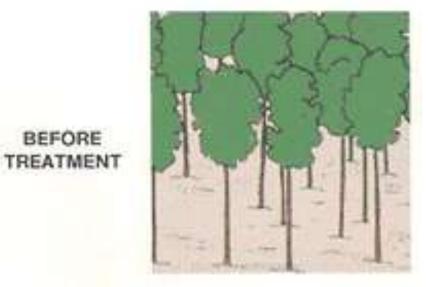
Crown Touching Release

BEFORE

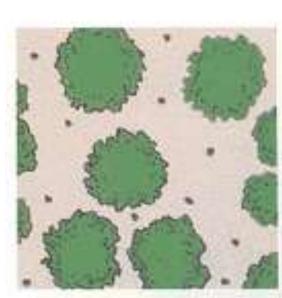
AFTER TREATMENT



View from above



View from side



View from above



View from side



- Kill cull trees
- Diseased trees
- Poor form
- Damage/defects
- Slow growers



When should I thin? An easy field guide:

Potential Crown Width (feet) = 1.993 X d.b.h. (inches) + 4.873.

PCW (feet) = 2 X d.b.h. (inches) + 5

Divide Actual Crown Width by PCW to get a Crown Width Ratio (CWR)

CWR = I = 100% potential growth

CWR = 0.8 = 75% potential growth

CWR = 0.7 = 53% potential growth



Questions?



Pruning Walnut



















It Doesn't Always Work





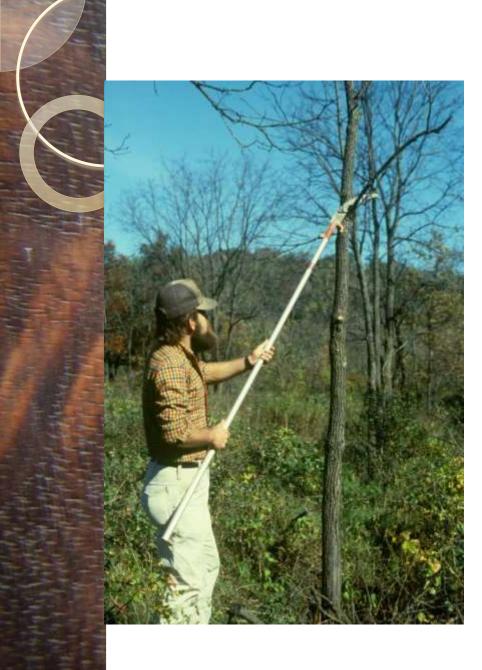






















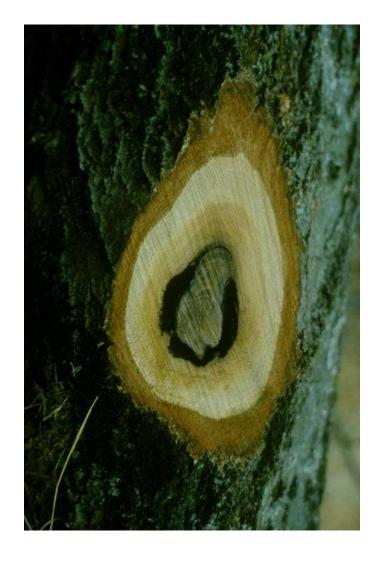


Prune Dead & Dying Limbs



Infected Pruning Cut







Oh No!







Uh Oh!





Questions?



Pests and Environmental Problems

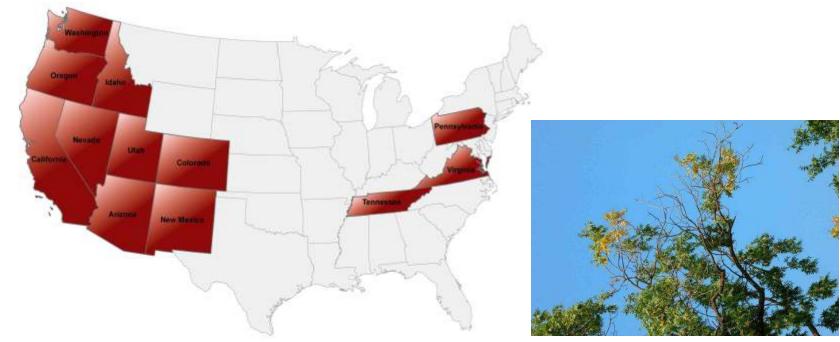
- Wind damage
- Frost damage





- Thousand Cankers Disease
- www.thousandcankers.com







Defoliators:

Walnut Caterpillar Yellownecked Caterpillar Fall Webworm







Walnut Anthracnose

- Fungal disease that can cause premature defoliation
- Reduced growth and increased susceptibility to other diseases

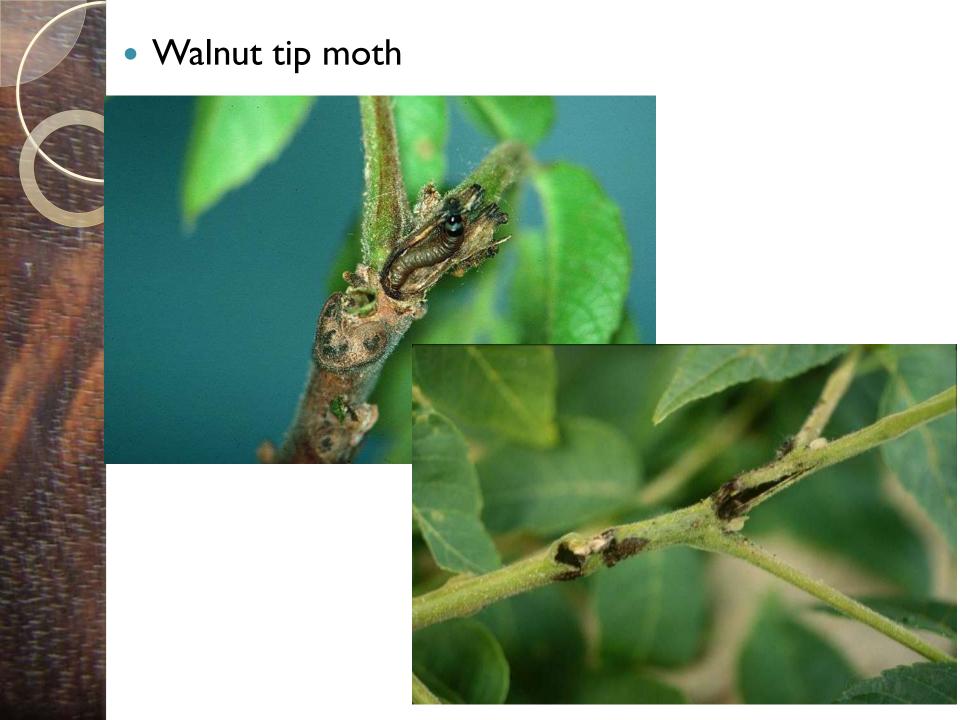


Nut pests

Walnut Curculio

Walnut Husk Maggots







Animal Damage









Questions?



Marketing Black Walnut Timber

- Professional forester assistance
- Stumpage or logs?
- Advertise to local and regional markets
- Use a competitive process– sealed bid
- Ask for certifications, training, insurance, references





Selection of the Trees to Market

 Get assistance from a forester who knows the local/regional markets

 Selecting the right trees to market now and the right trees to retain can improve future income potential





Black Walnut
 Prime Veneer
 Log Dia. (\$/MBF)

12-13 2993

14-15 4158

• 16-17 4891

18-20 5817

21-23 5872

24-28 6417

>28 6500

Black WalnutSawtimberGrade \$/MBF

Prime 1389

No. I 1079

• No. 2 709

• No. 3 393

Average delivered log prices from 56 Indiana mills, 201 I

2011 Forest Products Price Report and Trend Analysis - Dr. Bill Hoover and Greg Preston



Make sure everybody is on the same page – and the page is signed

- Have a timber sale contract
- Indicate what is being sold
- Spell out payment schedule
- Outline requirements for operating on the property - BMPs







Can I sell individual or small numbers of walnut trees?

- It depends...
- Very high value trees
- Combine sales with neighbors to increase total value/volume
- Work with a specialist in small timber volume – portable mills, specialty products





Resources for Managing Black

Walnut

- The Walnut Council
- USDA Forest Service
 Walnut Notes
- Your forester
- Extension publications from your land grant university
- Hardwood Tree
 Improvement and
 Regeneration Center

