

Habitat Management for White-tailed Deer



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Four Building Blocks of QDM



This talk focuses on the need for quality habitat by bucks, does and deer of all age classes. It discusses vegetation management from a forest, old field and food plot perspective, and explains how each fits into an overall habitat management plan and provides the necessary food and cover for each season of the year.

What is Habitat?

- Food



- Cover



- Water



- Space



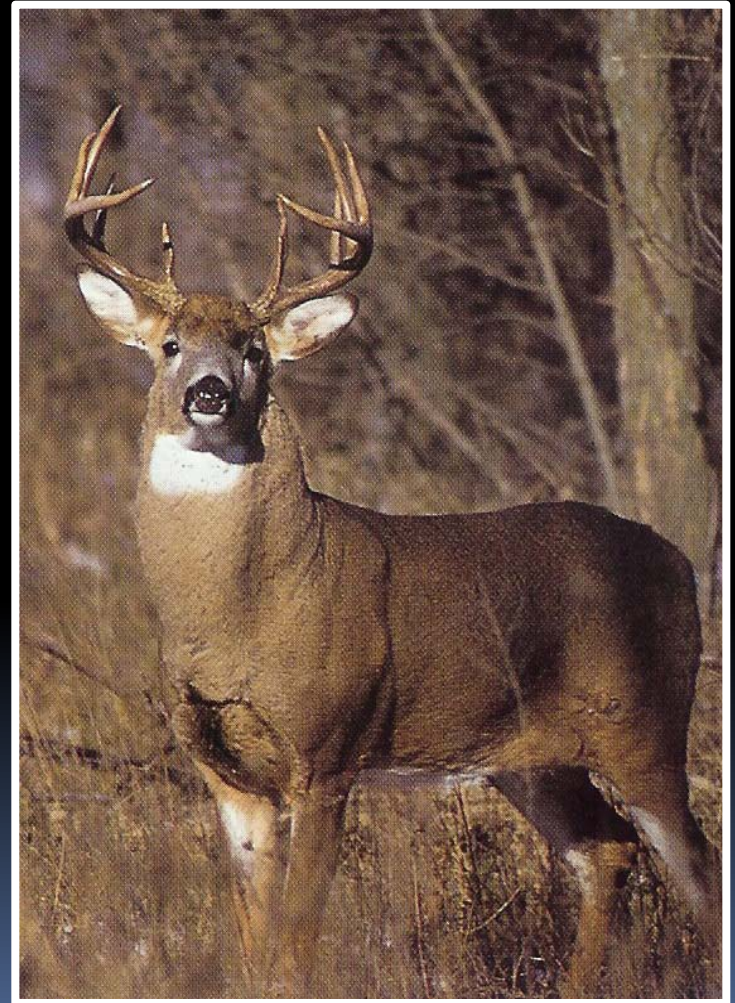
Important for does and fawns...



As well as bucks...



And for deer in all age classes...



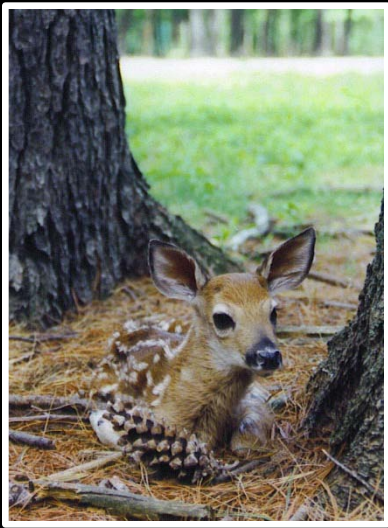
Each deer eats about one ton of forage annually!



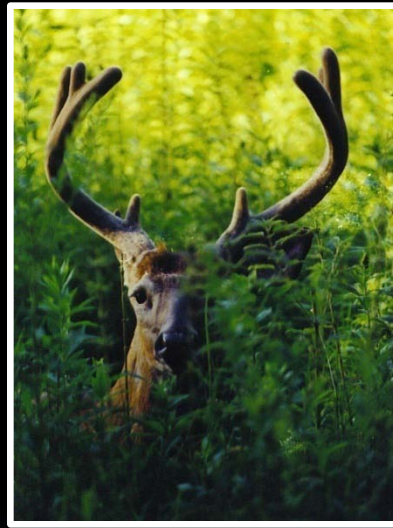
~12,000 pounds of forage is necessary
for this group of deer...



Goal is to provide year around quality deer forage...



spring



summer



autumn



winter

...not just what they use during the hunting season

Year around nutrition: SPRING

A critical time of year for deer:

- deer are recovering from winter nutritional stress
- does require high nutrition for developing fetuses and for lactation once fawns are born
- fawns need high-protein food to supplement milk
- antlers are developing

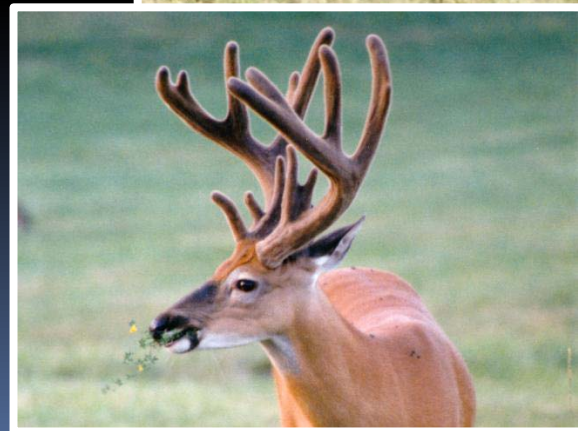


NOTE: Look for high-quality food sources and for areas where does can hide fawns

Year around nutrition: SUMMER

Second period of nutritional stress for deer because most natural forages are low in nutritional value at this time:

- fawns are developing rapidly
- does are still lactating
- antlers are developing rapidly
- periods of high temperatures



NOTE: Look for high-quality food and area where deer can find relief from periodic high temperatures

Year around nutrition: AUTUMN

- deer looking for large amounts of high-quality food to build up fat reserves for winter
- deer breeding and some bucks traveling long distances
- period when most yearling bucks disperse from natal range
- deer seeking undisturbed areas to avoid hunters



NOTE: Look for high-quality autumn foods in areas isolated from human disturbance that also provide dense bedding cover

Year around nutrition: WINTER

Most stressful time of year for deer:

- doesn't matter what type of food deer are eating, they burn more energy than they get from food!
- energy conservation is more important than food availability



NOTE: Look for areas with dense softwood cover and areas with preferred browse species

Vegetation or Habitat Management



Forests, Old Fields and Food Plots

Proper vegetation management provides...



Year around food...



Agricultural

Year around food...



Hard mast

Year around food...



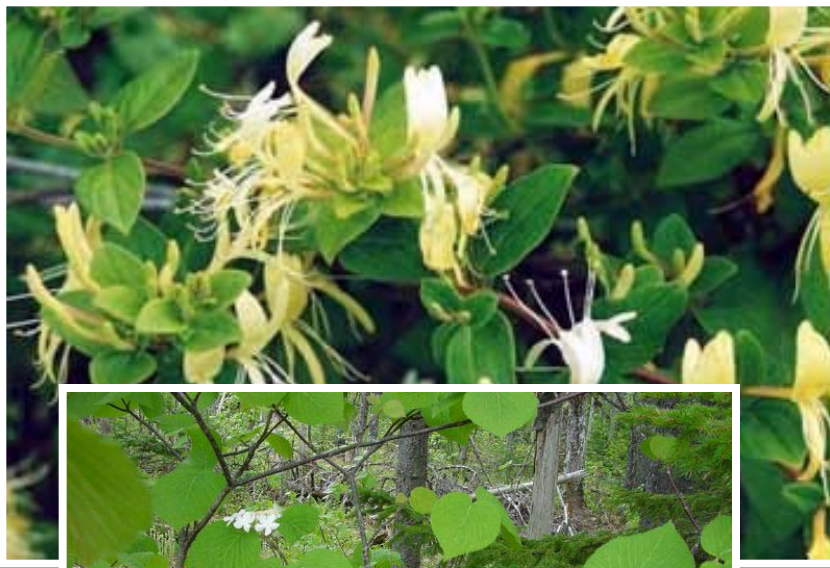
Soft mast

Year around food...



Forbs

Year around food...



Vines and shrubs

Year around food...



Hardwood browse

Year around food...



Softwood browse

Proper vegetation management also provides...



Year around cover...



Softwood species



Hardwood species

Year around cover...



Old fields/NWSG/Early succession

Year around cover...



...even in Food plots

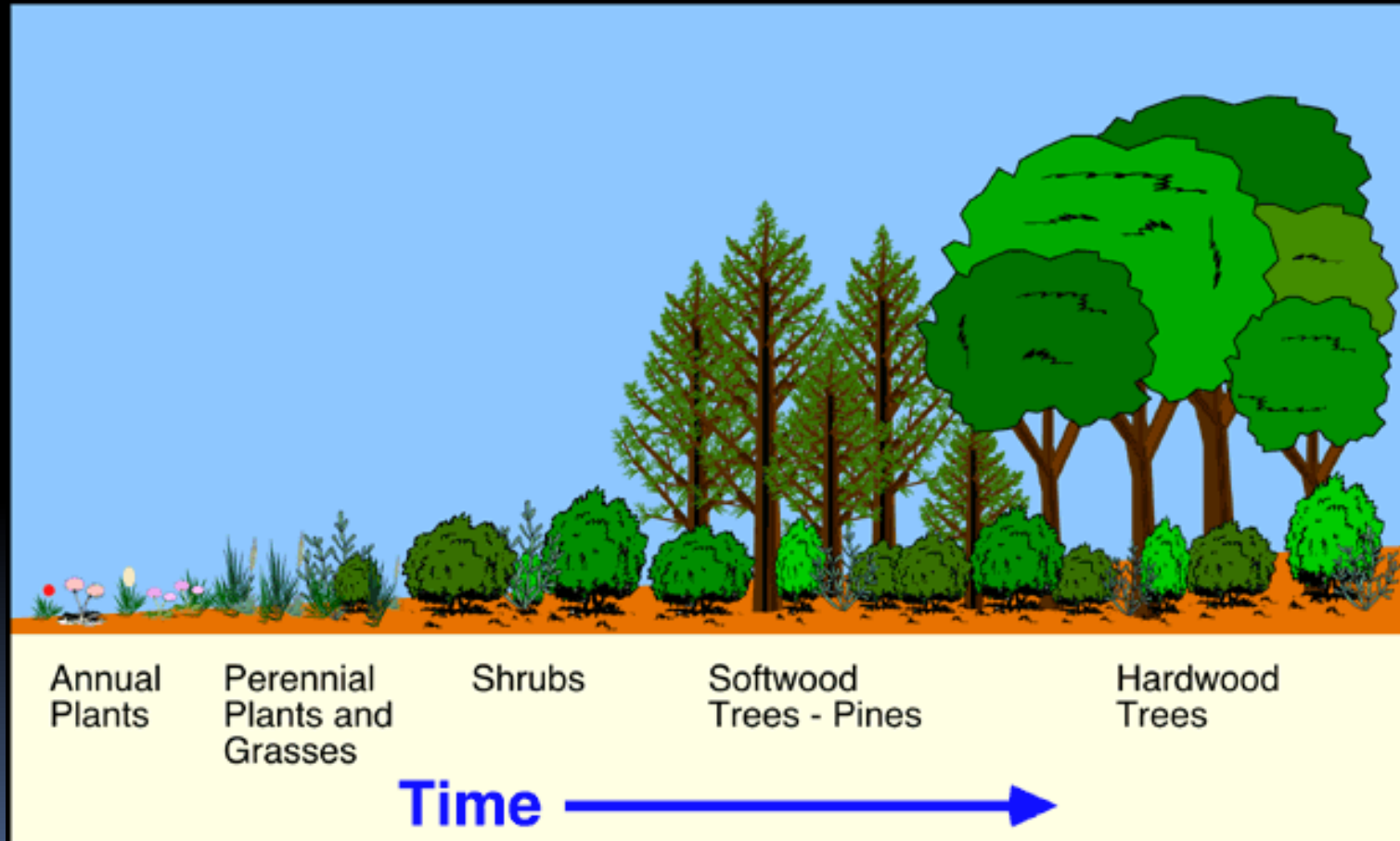
Habitat Management - The Basics

- **Provide a diversity of habitat types (species composition)**
 - **Evergreen (softwood)**
 - **Hardwood**
 - **Open/Field/ES**
- **Provide a diversity of age classes**
- **Smaller is generally better; higher diversity of age classes is better**
- **Habitats well interspersed**



Habitat Management - The Basics

- Plant succession



Habitat Management - The Basics

■ **Shade intolerant vs. Shade tolerant**

Shade-intolerant species of trees and shrubs are those that require full sunlight to thrive. They are sometimes called *pioneer* species because they are the first to become established on large, open, disturbed sites. They include poplar (aspen), white birch, white pine, and spruce.

Shade-tolerant species of trees and shrubs are those that grow well with limited or very little sunlight, and may out compete pioneer species over time. They include hemlock, fir, beech, sugar maple.

Elm, oak, and spruce are intermediate in tolerance.

Habitat Management - The Basics

- **Crown Dominance**

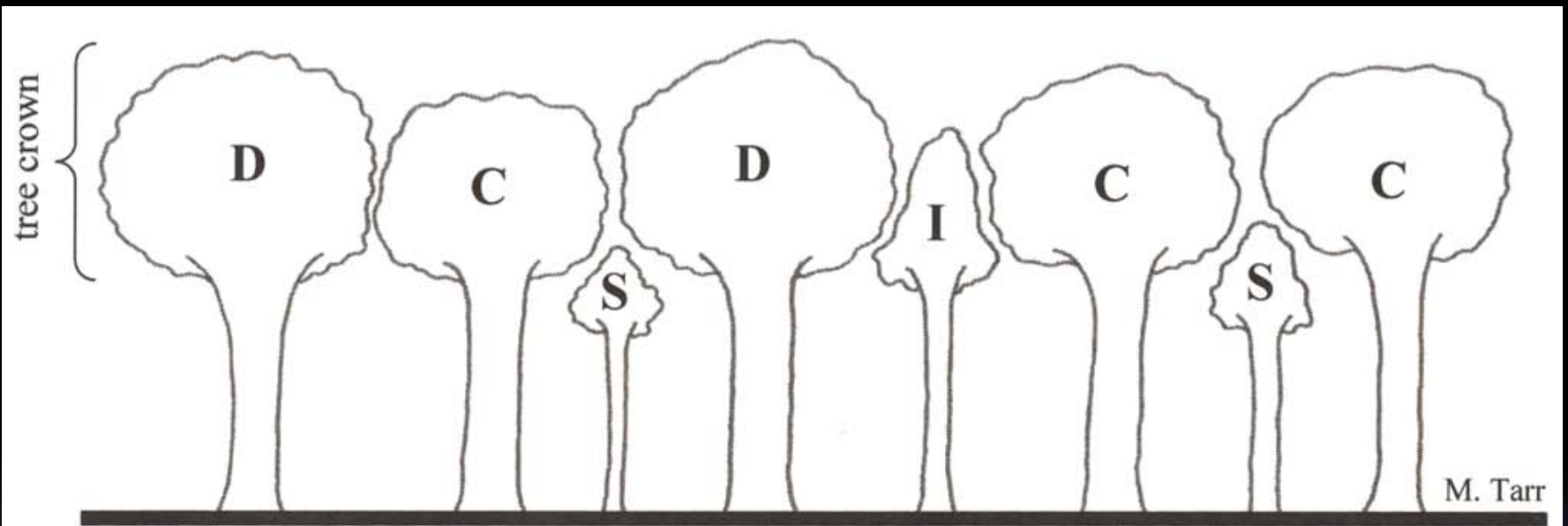


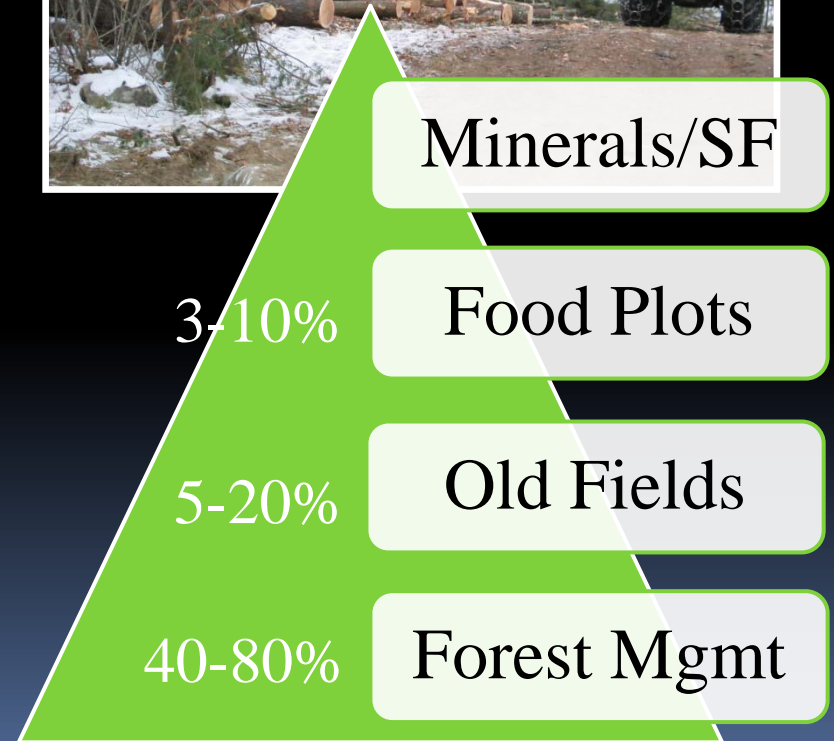
Figure 1. Tree crown position as it relates to dominance in a forest stand.
D = Dominant, C = Codominant, I = Intermediate, S = Suppressed

Habitat Management – How much?

- **Timber/Forest:** goal 40 to 80%
- **ES/NWSG/Old field:** goal 5 to 20%
- **Agriculture/Crops:** goal less than 40%
- **Food Plots:** goal 3 to 10%
- **Water/Ponds/Wetland:** goal 1 to 20%
- **Other (ROWs, bldgs):** goal 0 to 10 %

Should equal = 100%

Forest or Timber Management



Importance of Proper Timber Management

- Major driver of overall habitat quality (sunlight, seed source, wind break, successional transitions, etc.)
- Enhance huntability
- Likely the only significant revenue generator on the property



Provides food and cover...



You don't want this...



This stand contains 50-100 lbs browse/acre

This is much better...



This stand contains 1-2,000 lbs browse/acre

Forests are maintained by...

- **Involve a professional!!**
- **Conventional vs. Mechanical Logging**



Old Fields/NWSG/ES



Typically 5-20% of area

Also can provide food and cover...



Forbs are extremely important...



NWSG provide escape, bedding and thermal cover...



...but you don't want a monoculture

In addition to fawning cover...



Old field are maintained by...

- **MowingNot Really!**
- **Prescribed fire**
- **Disking**
- **Crushing with roller chopper/dozer**
- **Fertilizing**
- **Herbicide**
- **Combination of methods**

Managing old fields/early succession

Use ***FIRE*** and ***DISKING*** to create optimum conditions

Maintain early succession

Set back every 2 – 5 yrs

Regulate composition

Use selective herbicides

AVOID mowing!



Prescribed fire

Sets back succession

Consumes vegetation

Stimulates seedbank

Recycles nutrients

Increases available
nutrition

Composition influenced

by:

- frequency (2 – 4 years)
- season of burn



Disking

Sets back succession

Facilitates decomposition

Stimulates the seedbank

Increases forb component

Composition influenced
by:

- season of disking

Manage by quarters

- disk blocks, not strips



Mowing doesn't improve it!!

Does not kill woody succession

- leaves 3 sprouts instead of 1

Creates deep thatch layer

If implemented in summer

- destroys fawning cover
- may kill fawns



deep thatch



unmowed strips may be traps

General recommendations for early succession/old field mgmt:

Eradicate non-native grasses

Concentrate on upland areas

- bottomlands difficult to maintain

Manage fields on a 4-year interval

- for forage *and* cover
- saves time and money
- biologically sound

Plant firebreaks if needed

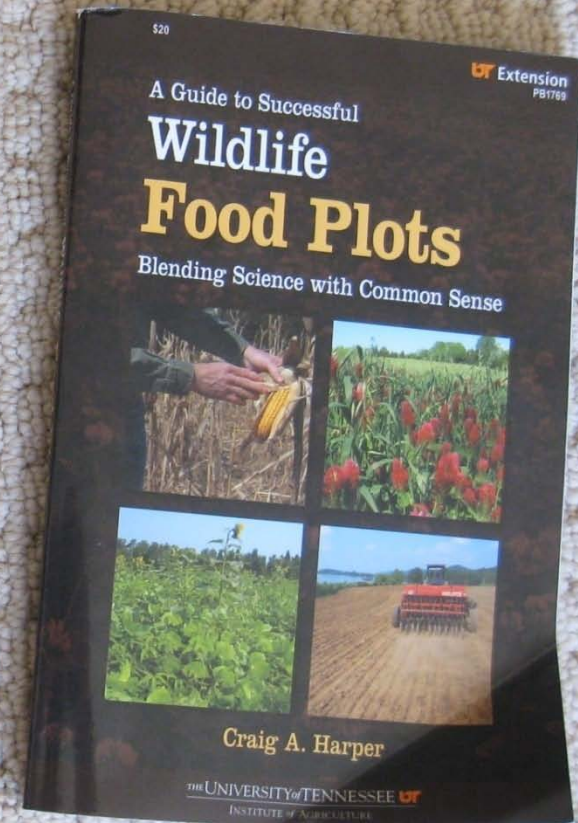
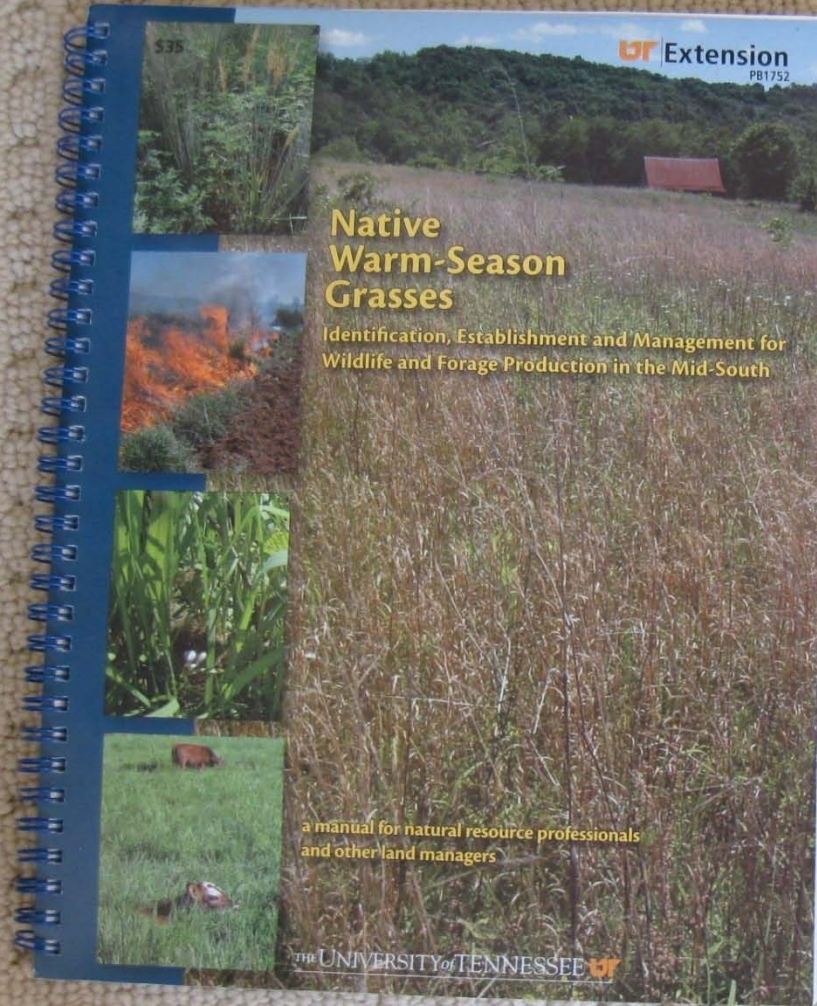
Use selective herbicides

- remove non-natives
- spot-spray woody problems



Great books for reference...

www.QDMA.com



Food Plots



Typically 3-10% of area

Provide food and some cover...



Are used to supplement native vegetation

What to Plant?

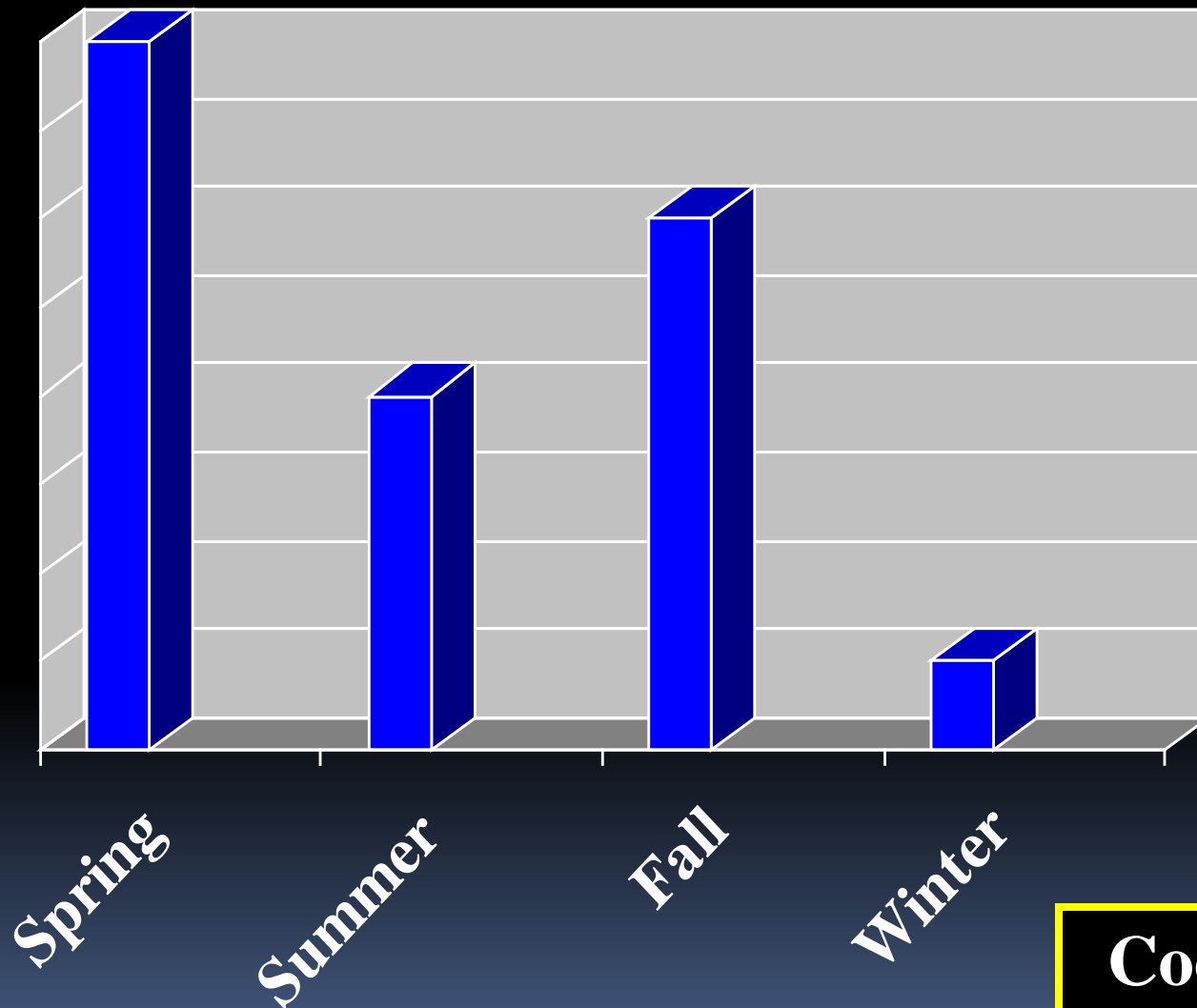


Cool-Season Perennials

- **Alfalfa**
- **White Clover**
- **Red Clover**
- **Birdsfoot Trefoil**
- **Chicory**



Provide Year-Round Nutrition



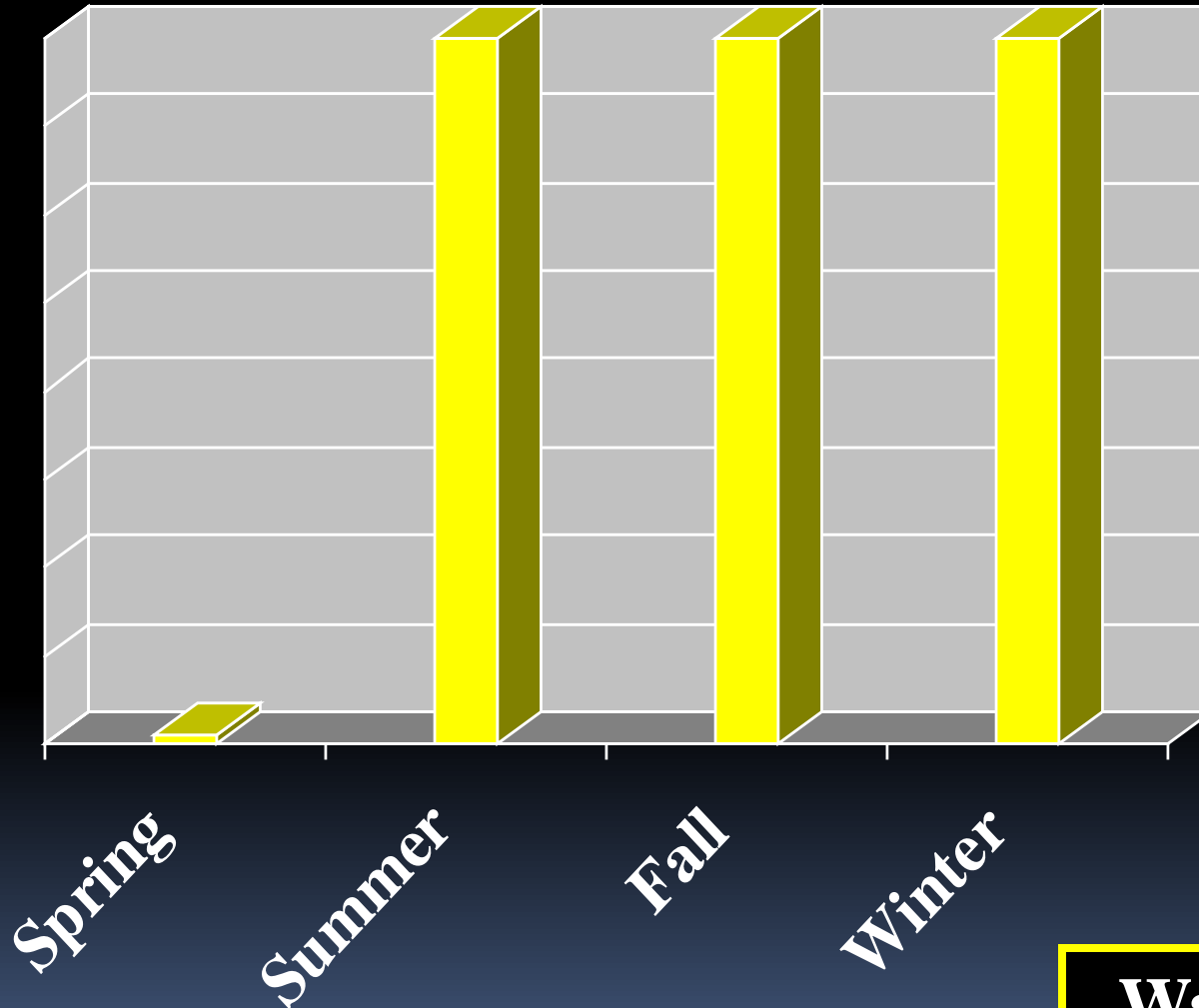
**Cool-Season
Perennials**

Warm-Season Annuals

- **Corn**
- **Soybeans**
- **Cowpeas**
- **Lablab**
- **Millet**
- **Sorghum**



Provide Year-Round Nutrition



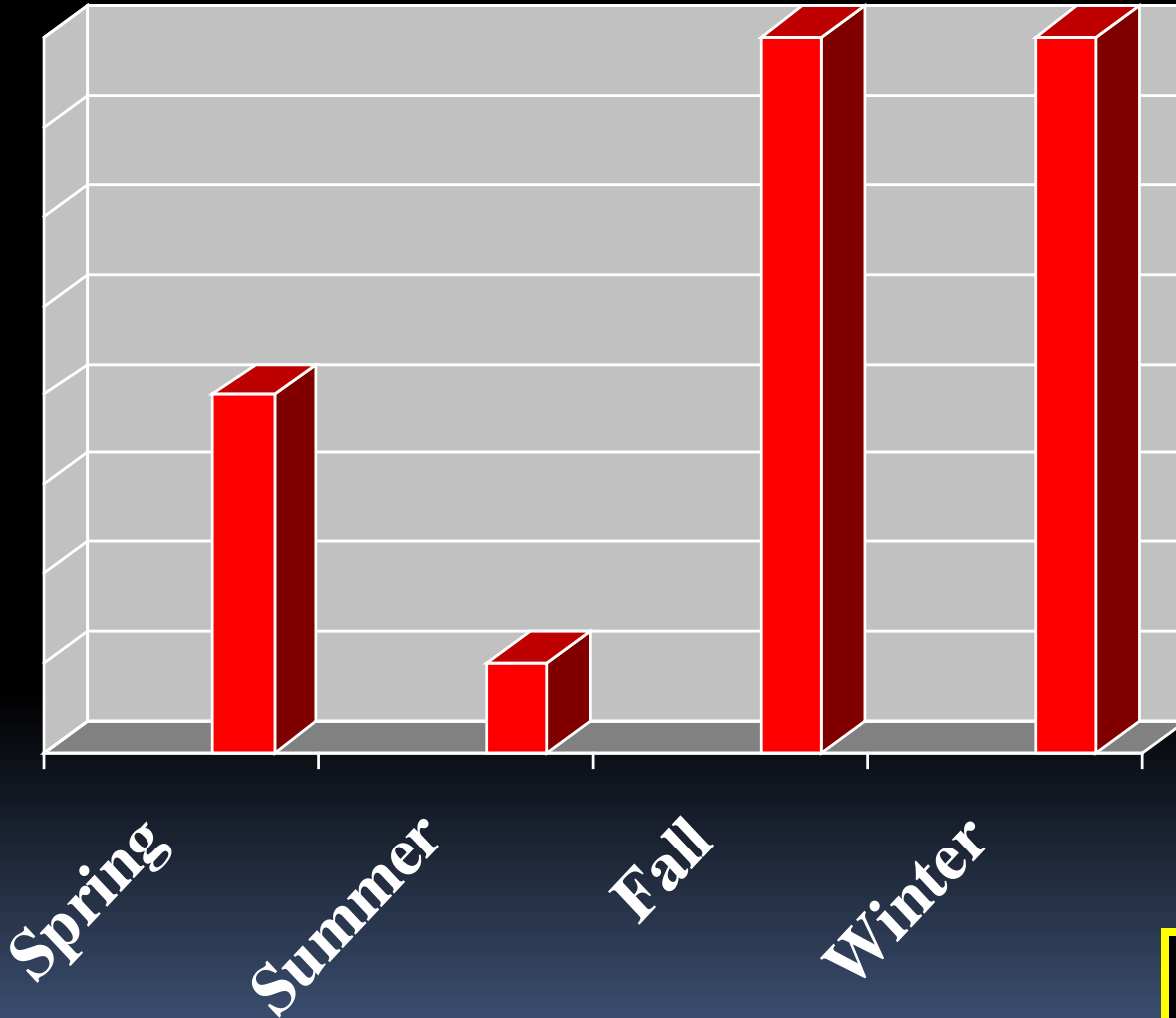
**Warm-Season
Annuals**

Cool-Season Annuals

- **Brassicas**
 - turnips
 - rape
 - kale
- **Winter Wheat**
- **Oats**
- **Rye**
- **Austrian Winter Pea**

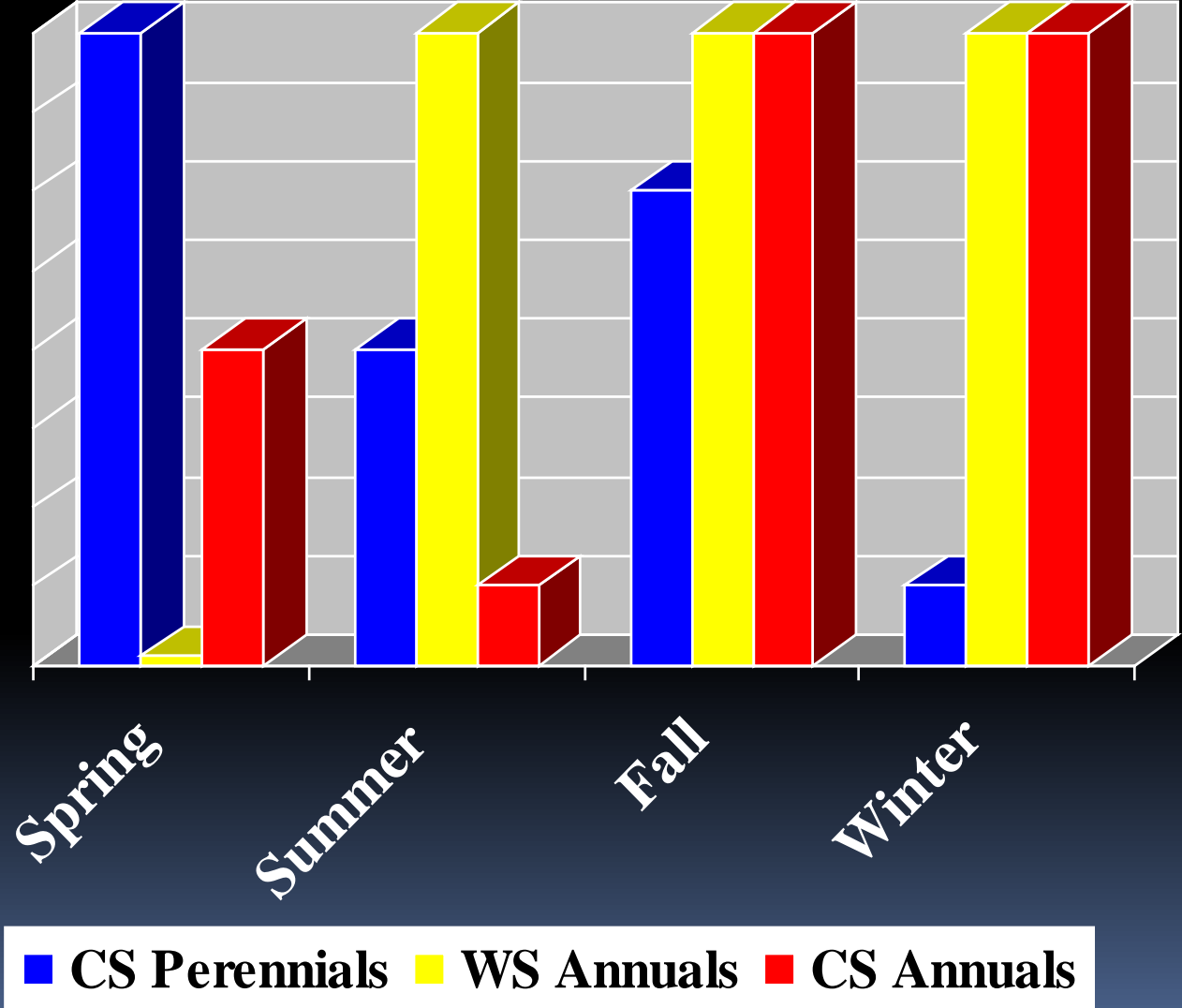


Provide Year-Round Nutrition



**Cool-Season
Annuals**

Provide Year-Round Nutrition



Nutritional vs. Hunting Plots



Nutritional – provide nutrition to deer herd

Nutritional vs. Hunting Plots



Hunting – provide place to shoot deer

Type – Nutritional vs. Hunting

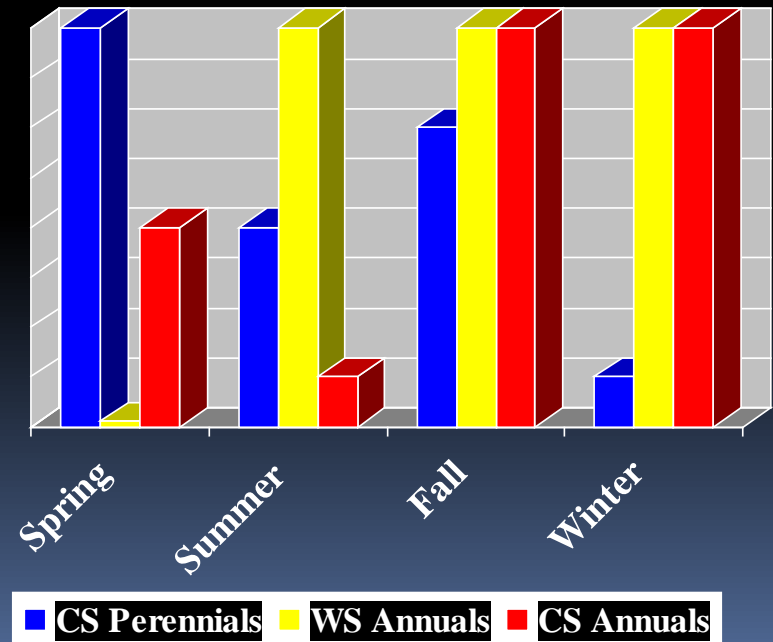
I recommend planting both types so you can:

- **improve herd nutrition**
- **provide preferred stand locations**



Recommendations for Nutritional Plots (1-5 acres)

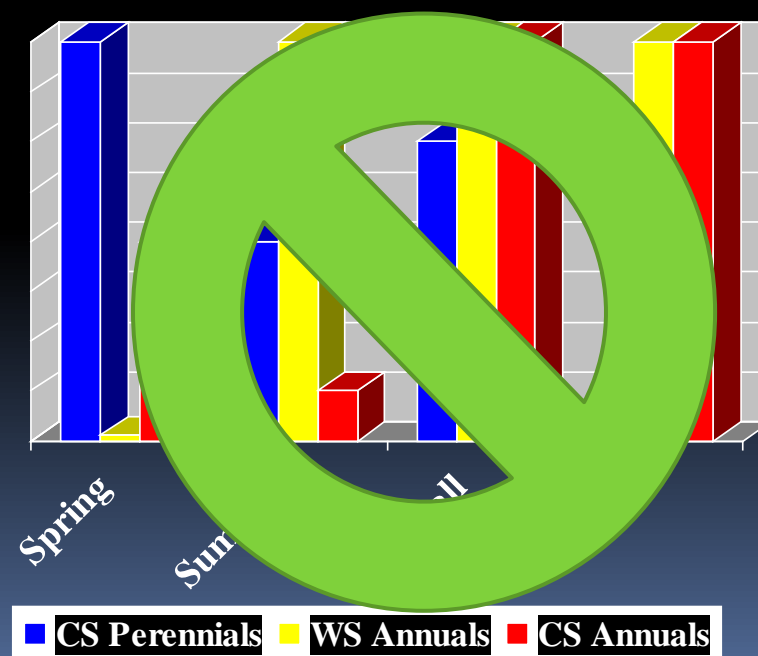
- ~50% in cool-season perennials (clovers)
- ~25% in cool-season annuals (brassicas)
- ~25% in warm-season annuals (corn, soybeans)



Recommendations for Hunting Plots (1/4 – 1 acre)

- Soybeans
- Cowpeas
- Rye (grain)
- Young “green” plants
- Brassicas

Go with what's attractive
...and different!!



Which is Best?

Your complete guide

Attract, hold and grow big bucks with products from the Whitetail Institute

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SINCE 1980

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WHAT IS BIOLOGIC'S PREMIUM GREEN PATCH PLUS?

BioLogic's Green Patch PLUS is a blend of traditional grain and New Zealand brassicas and clovers which provide nutritional and scientifically proven attracting and nutritional performance in large acreage food plots. It is a fall planting that combines the proven attractiveness of transitional grains and adds the nutrition and attraction appeal of greater NZ brassicas and clovers. Green Patch PLUS germinates quickly and is attractive and nutritious to whitetail from the time of germination to well past hunting season.

COVERAGE RATES
40 LB. = 1 ACRE

ITEM NUMBERS
40 LB. = #8421

BIOLOGIC TEST PLOT #12

TECOMATE SEED COMPANY

FORCED INTO BUSINESS BY THE DEER WE GROW

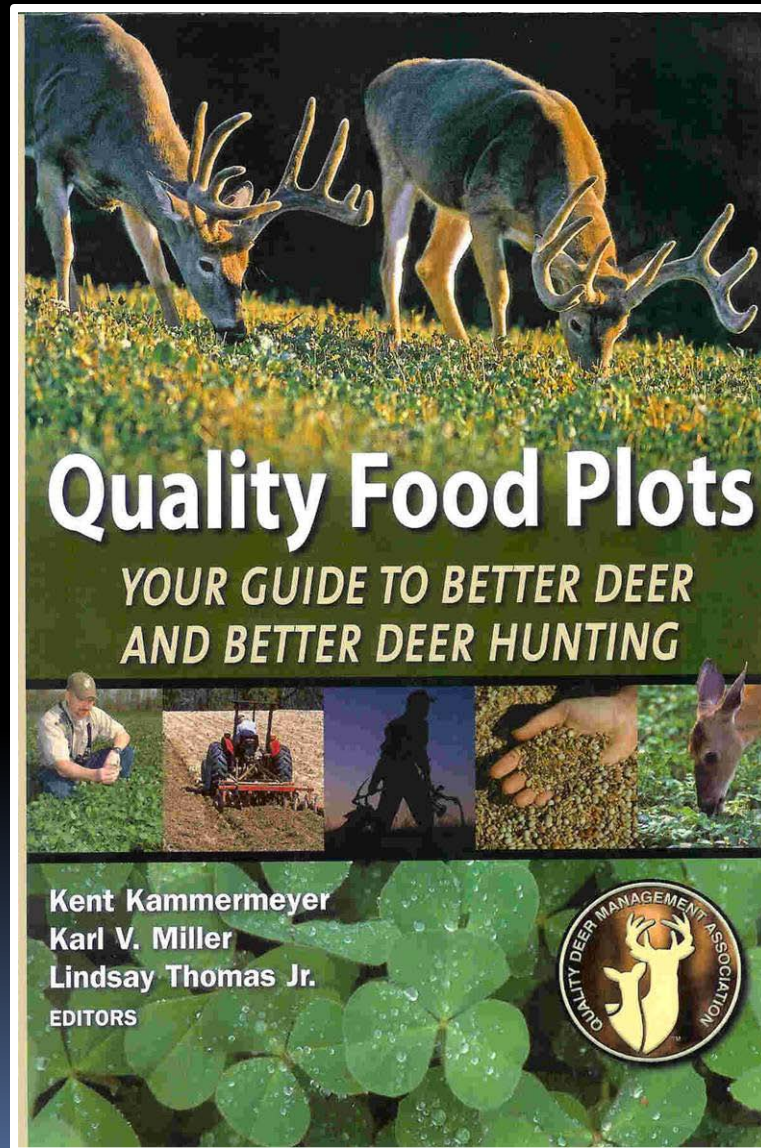
Product Guide

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Great book for a reference...



Getting Started

What are your objectives/what are you trying to accomplish?

Attract and hold deer for hunting

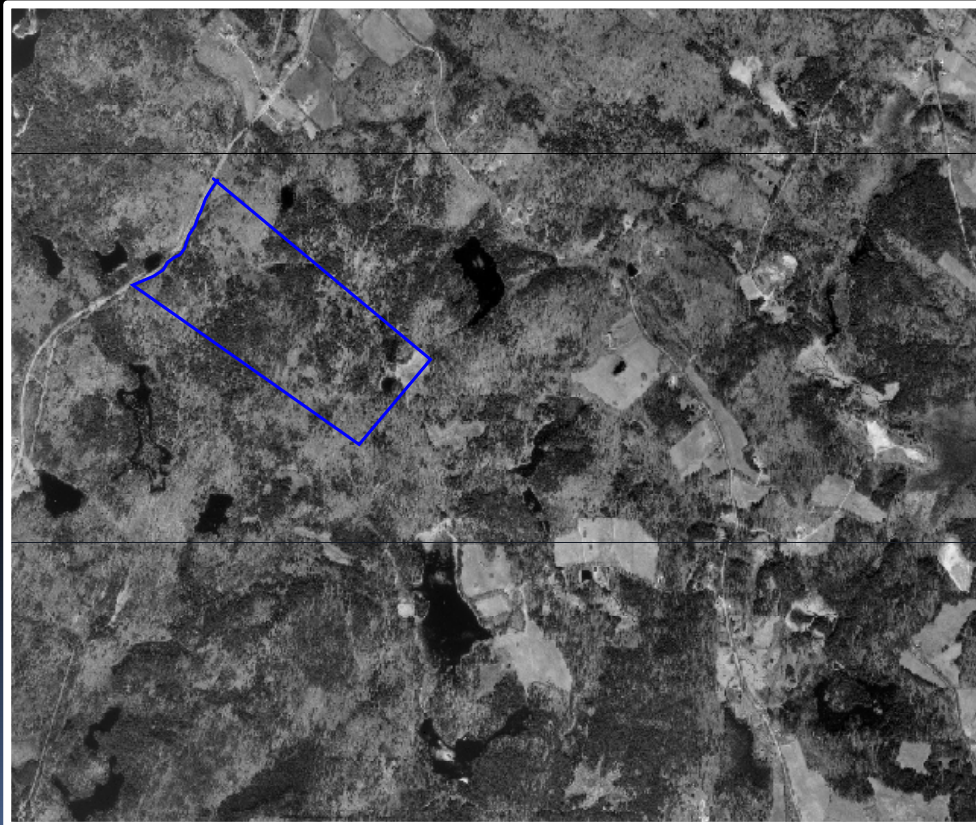


Improve deer health & quality



Getting Started

In most situations it is difficult to provide all the habitats deer need during the year on properties less than a few hundred acres



Getting Started

However, regardless of your property size always remember:

Deer don't recognize property boundaries!

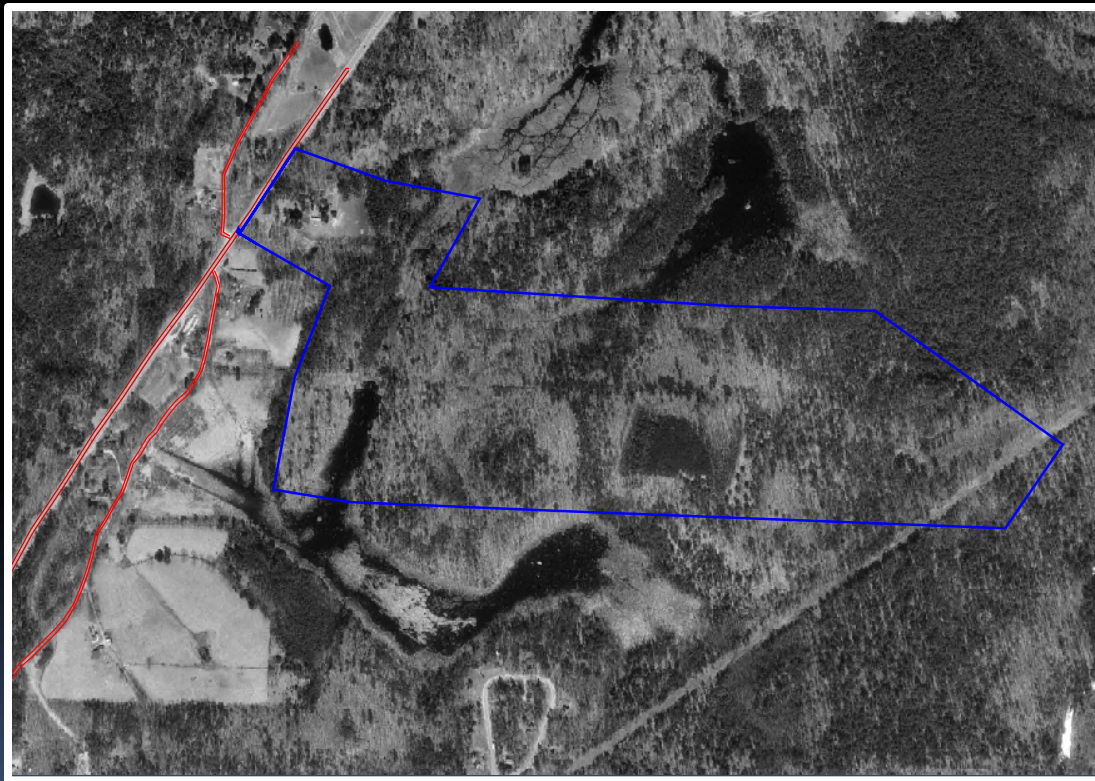


Unless you are managing +2000 acres, deer are likely to use your property for only a portion of their yearly habitat needs

Getting Started

To be most successful in:

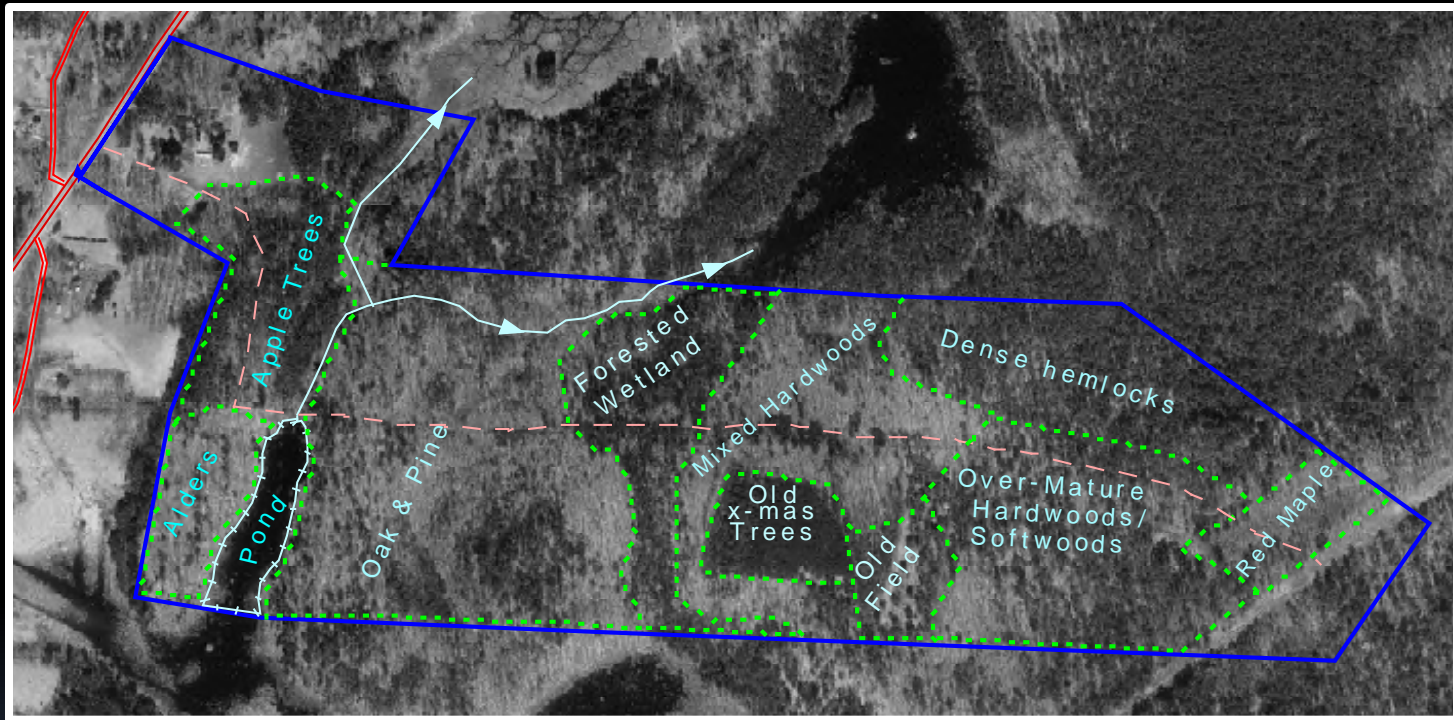
- attracting and holding deer on your land and
- providing the biggest benefit to deer in your area...



Manage your land to compliment the land around you – regardless of the size of your property

Assess your property and the surrounding habitat

Conduct a detailed assessment of your land to determine what habitats are currently available to deer

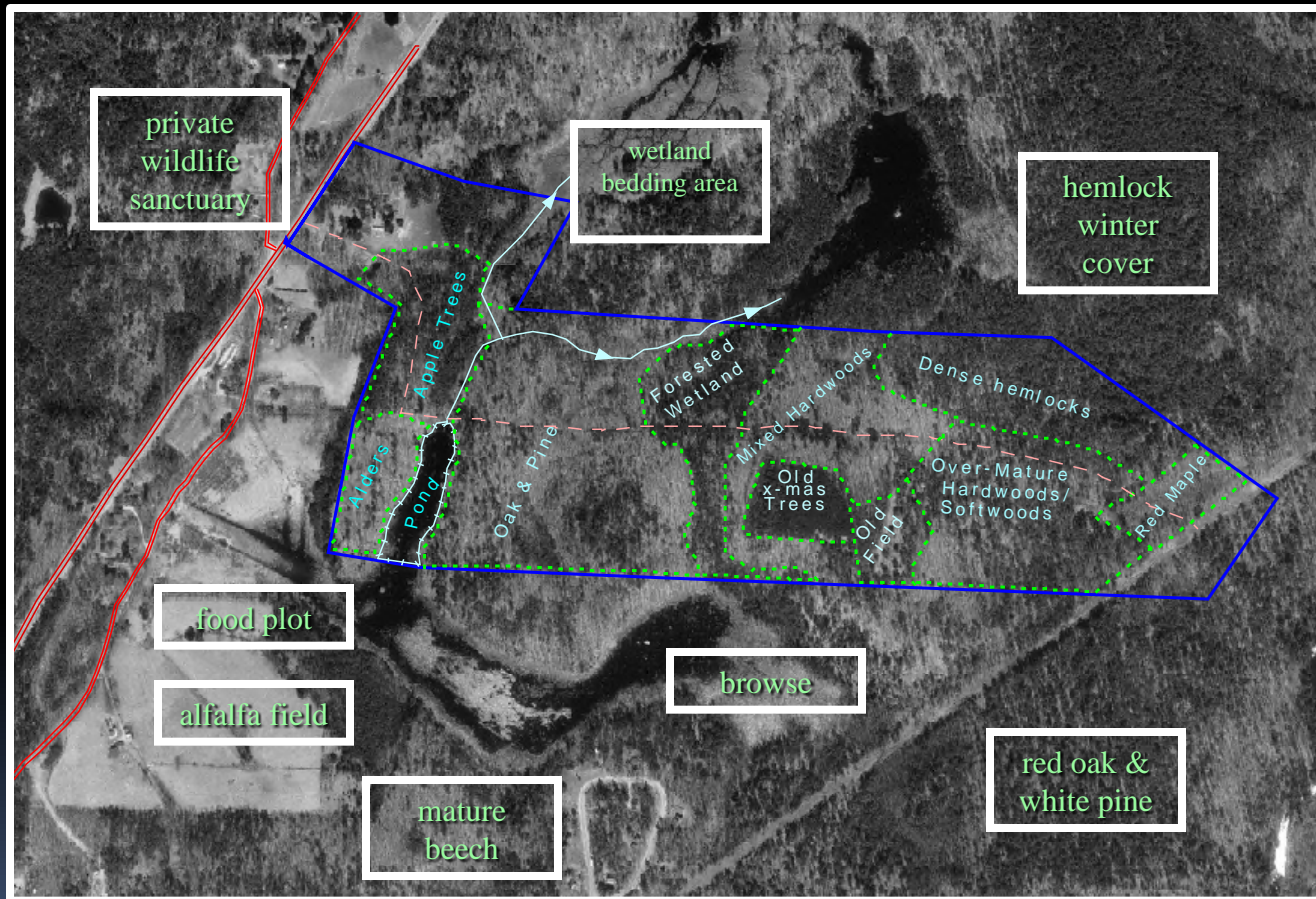


Locate and map:

- browse areas
- mature oaks/beech
- fields/food plots
- softwood cover
- bedding areas
- ponds & swamps
- wetland drainages
- old apple trees
- roads & trails

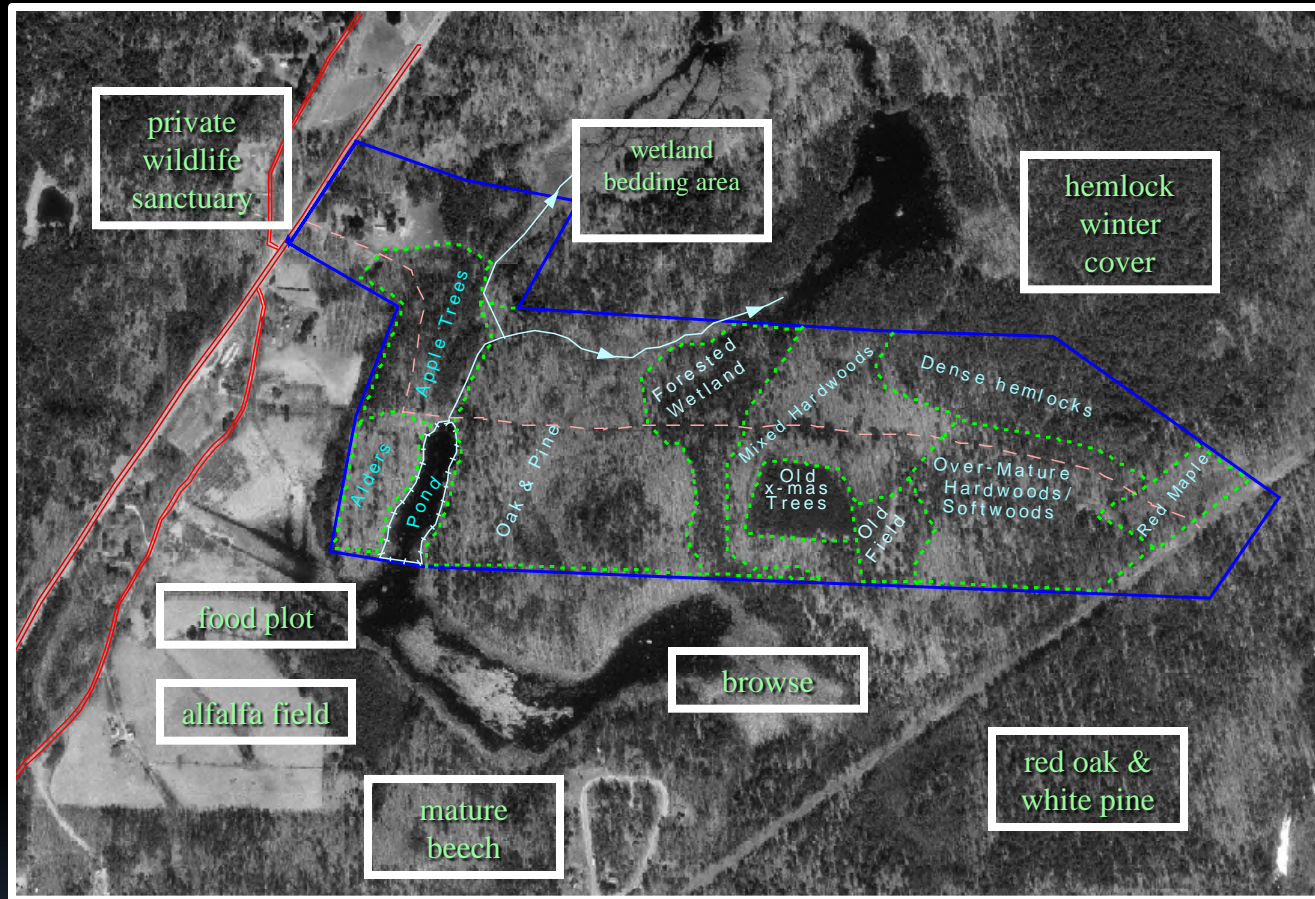
Assess your property and the surrounding habitat

Look beyond your boundaries to see what habitats are available to deer on the land around you



I recommend conducting a general habitat assessment within a 1 mile radius around your property

Assess your property and the surrounding habitat



- Allows you to see how your property compares with others around you
- Helps you understand how, why, when, and where deer are using your property

Putting your assessment to work

Use your assessment to determine if there are any gaps in the habitat needs of deer in your area

Look on your land for opportunities to:

- create
- enhance
- maintain

habitats that are unique or important to deer in your area



Doing so:

- gives deer a reason to use your property
- allows you to improve the overall quality of habitat in your area

Get professional assistance!

Professional wildlife biologists or foresters can help you:

- assess your property
- ID opportunities to improve habitat
- provide management recommendations
- develop management plans
- secure financial assistance
- avoid costly mistakes!



Get professional assistance!

A variety of professionals available to help you manage your land:

- Cooperative Extension
- State Forestry and/or Wildlife agency
- Natural Resources Conservation Service (NRCS)
- USDA Farm Services Agency
- Consultant



They can help you be sure you are meeting your objectives most effectively

These professionals will walk your land with you free-of-charge!

How do you find and keep up with all of this information?

Join the
QDMA!



Good deer habitat benefits many other species...



Quality Deer Management...



Quality Deer Management Association



www.QDMA.com

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mross@qdma.com