Winter Forage Alternatives

UF UNIVERSITY of FLORIDA
IFAS Extension

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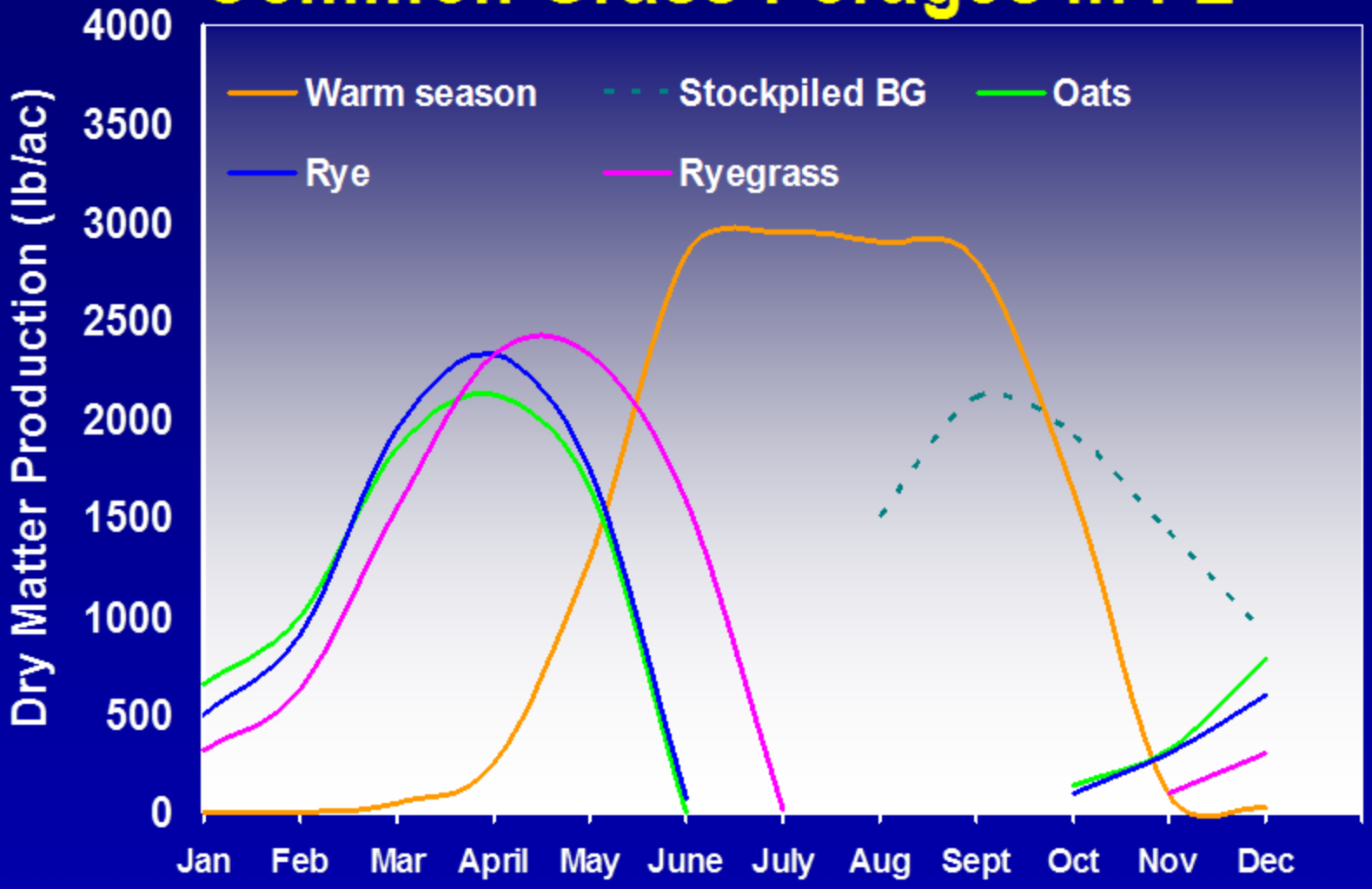
Seasonal Forage Availability of Common Grass Forages in FL



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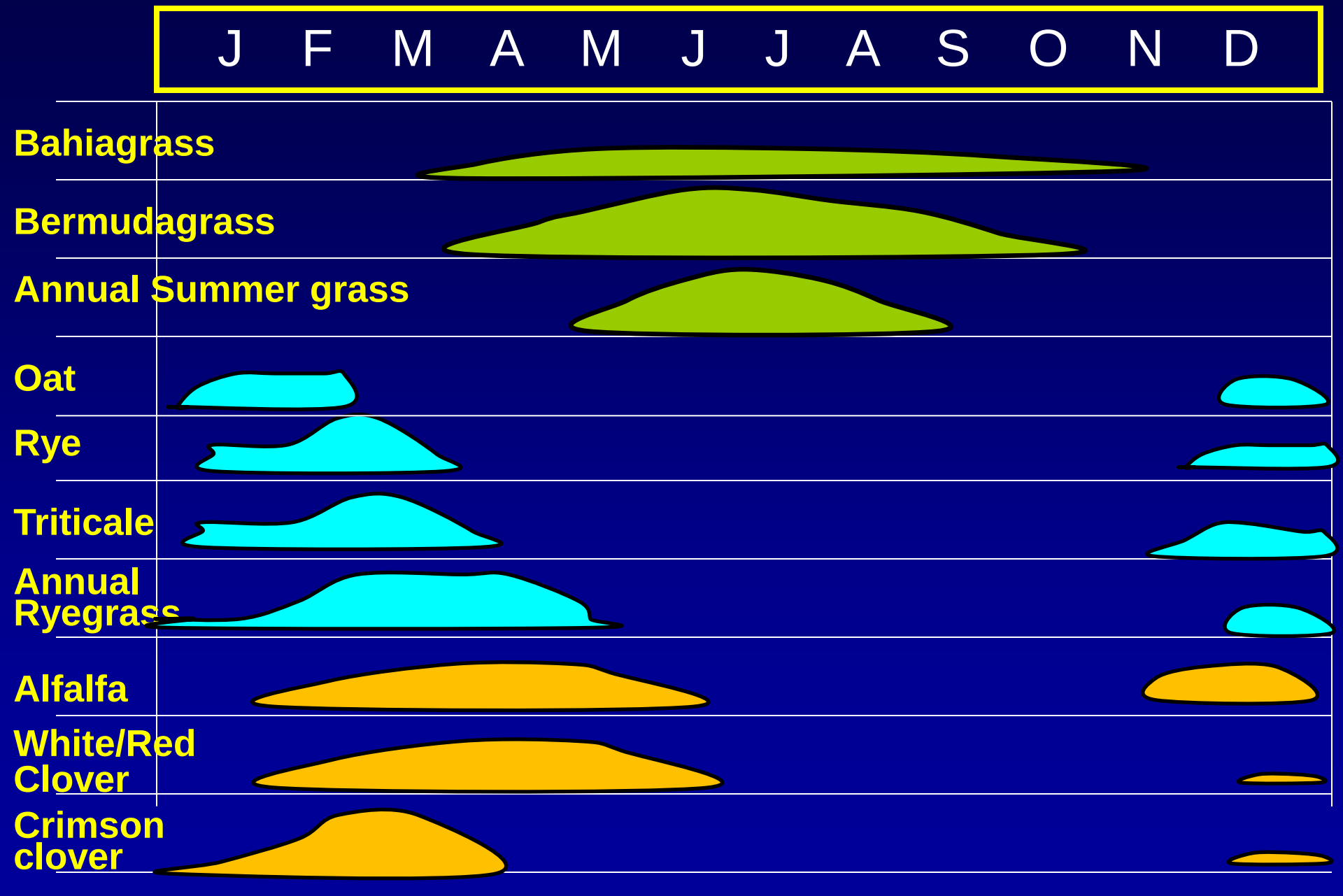
Forage Availability in Florida by Months



Oats (most palatable, less winter hardy)

- Soil: Sandy loam - clay
  pH: 5.5 – 7.5
- Temperature: Lacks cold tolerance
- Planting Date:
  Nov 1 – Nov 30 (forage)
  Nov 15 to Dec 15 (grain)
- Seeding Rate: 100 to 120 lb/acre
- Planting depth: 1 to 2 inch
- Production: 4,000-6,000 lb/A
- Grazing
  Starting height: 8-12 inches,
  Stop at 3-5 in, rest 7–15 day

Oats (most palatable, less winter hardy)

Life Cycle	Time
Planting to Germination	3 to 10 days
Germination to Pollination	130 – 150 days
Starch Build up	3 to 4 weeks
	2 to 4 weeks (when adverse conditions, too dry/hot)


Recommended cultivars:
Horizon 201,
RAM LA99016,
Plot Spike LA 9339
SS76-40,
Others include:
TAMO 406.
Horizon 270,
Horizon 321,
Horizon 474,

OAT	Harvest Date - 2011				Season Total	
Brand Variety	1-07	2-18	3-16	4-11	2011	2-yr
	---------- DM Yield (lb/acre)----------					
RAM LA99016	811	1065	3593	1316	6786	6267
Horizon 201	1595	997	3083	1082	6756	6700
SS76-40	1180	1204	3201	1004	6588	6296
Plot Spike LA9339	1157	1043	3176	943	6318	6026

Planted: Nov. 9, 2010

Fertilization:

Preplant: 30 lb N, 0 $P_2 0_5$, and 60 lb $K_2 0$

Topdress: 51 lb N/acre after1st, 2nd, and 3rd harvest

Barley Yellow Dwarf

Source: oklahoma state

Spring Oats (Coming in the near Future)

- **Current Breeding Work:**

Early Oat

Spring Oat

Rye (most winter hardy & drought tolerant)

- Soil: Sandy loam - clay
- pH: 5.2 – 7.5
- Temperature: Most cold tolerant

*in mild winters will head out early – Feb-Mar

- Planting depth: 1 inch
- Planting rate: 90-100 lb
- Use: overseeded for grazing
- Production: 4000-6000 lb/A

Cultivars: FL 401 (for early grazing or for use in blends), AGS 104, Wrens 96, Wrens Abruzzi, Bates, Oklon,

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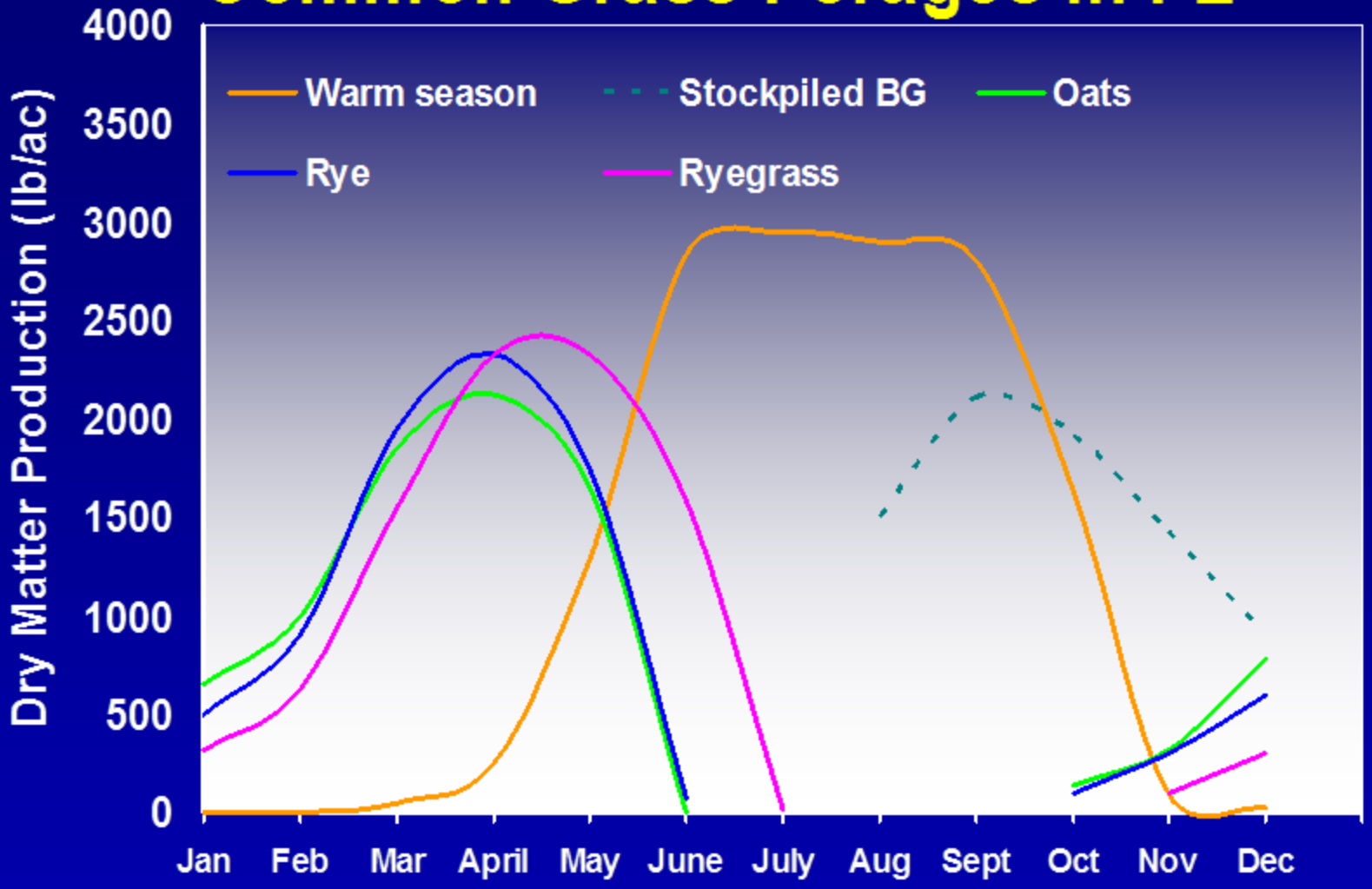

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RYE	Harvest Date - 2011					Season Total		
Brand/ Variety	1-07	1-20	2-11	3-01	3-28	4-26	2011	2-yr
	---------- DM Yield (lb/acre)----------							
FL 401	1836	1320	410	1680	1462	470	7178	6040
Bates ARS4		870	1160	2739	1200	346	6314	5544
Wrens 96		769	1314	2525	1285	268	6161	5486
Wrens Abruzzi		723	1052	2478	992	246	5491	5094

Planted: Nov. 9, 2010
Fertilization:
Preplant: 30 lb N, 0 P_20_5, and 60 lb K_20
Topdress: 51 lb N/acre after 1st, 2nd, and 3rd harvest

Triticale (Triticum x rye; disease resistant)

- Soil: Sandy loam - clay
- pH: 5.2 – 7.2
- Temperature:

  cold tolerant
- Planting depth: 1-2 inch
- Planting rate: 90-100 lb
- Use: silage, grazing
- Production: 4000-6000 lb/A
- Varieties for forage:

  Trical 342 and Monarch

TRITICALE	Harvest Date - 2011				Season Total	
Brand Variety	2-03	2-22	3-21	4-11	2011	2-yr
	---------- DM Yield (lb/acre)----------					
Trical 342	1807	764	3116	273	5960	5200

Planted: Nov. 9, 2010
Fertilization:
Preplant: 30 lb N, 0 P_20_5, and 60 lb K_20
Topdress: 51 lb N/acre after1st, 2nd, and 3rd harvest

Ryegrass (High quality)

- Soil: Sandy loam - clay
- pH: 5.5 – 7.5
- Moisture conditions
- Planting depth: < ¼ inch
- Use: overseeding, grazing
- Seeding rate: 20 - 3 0 lb/a
- Production: 4000-7000 lb/A
- Reseeding: Excellent

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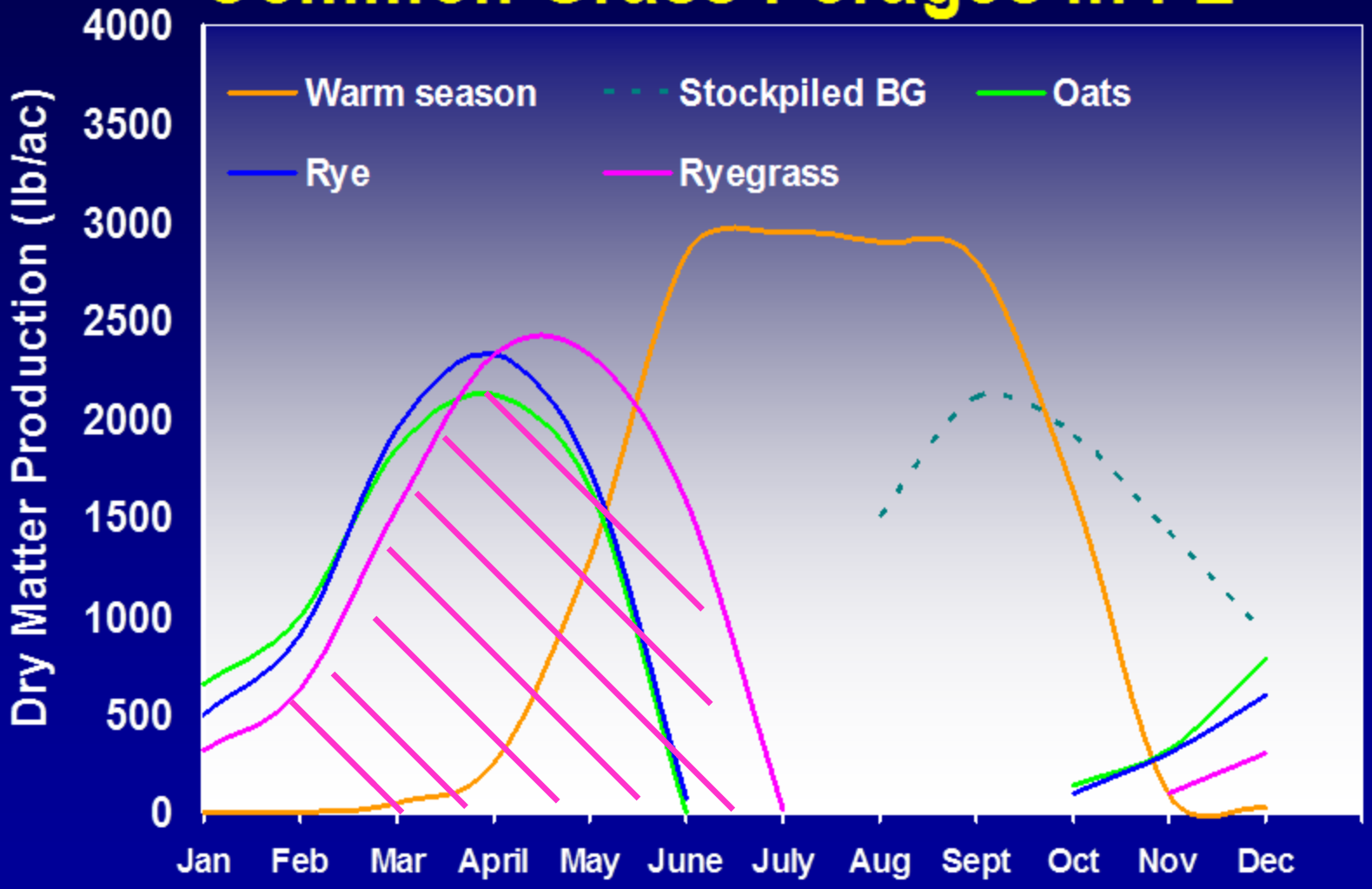



Gray leaf spot

Recommended cultivars:

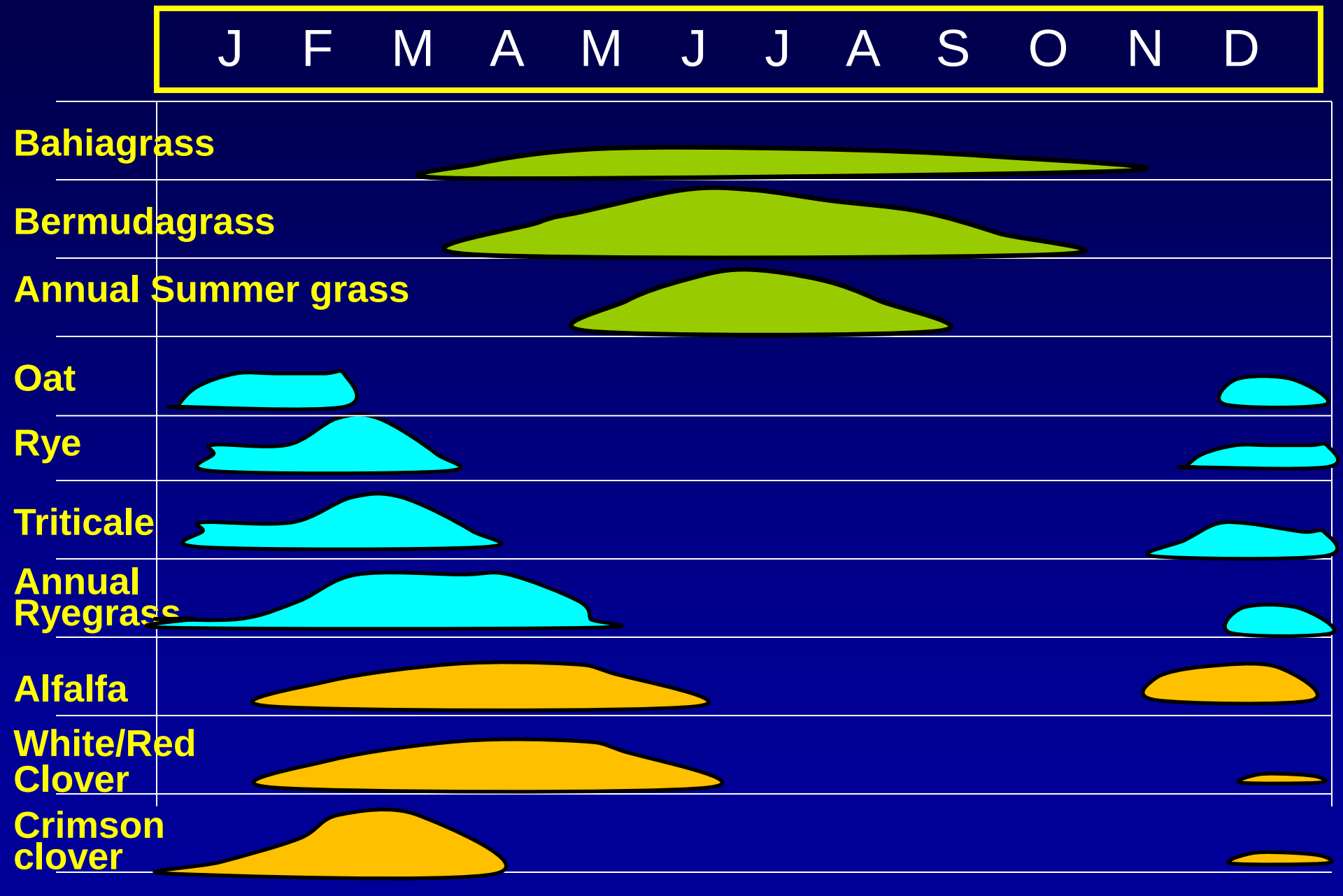
Early:
Attain, Big Boss, Bulldog/Grazer, Diamond T, Flying A, Prine, Rio, TAMTBO, Earlyploid and Nelson

Late:
Attain, Big Boss, Jumbo, Marshall, ME94, Rio, TAMTBO, and Verdure.

Others:
Florlina, Surrey II, Jackson, Big Daddy, TAM 90, Passeral Plus, Brigadier, Fantastic, Graze-N-Gro, King, Beefbuilder III


Pasture Legumes

Forage Availability in Florida by Months



Importance of Legumes

- Fix Nitrogen

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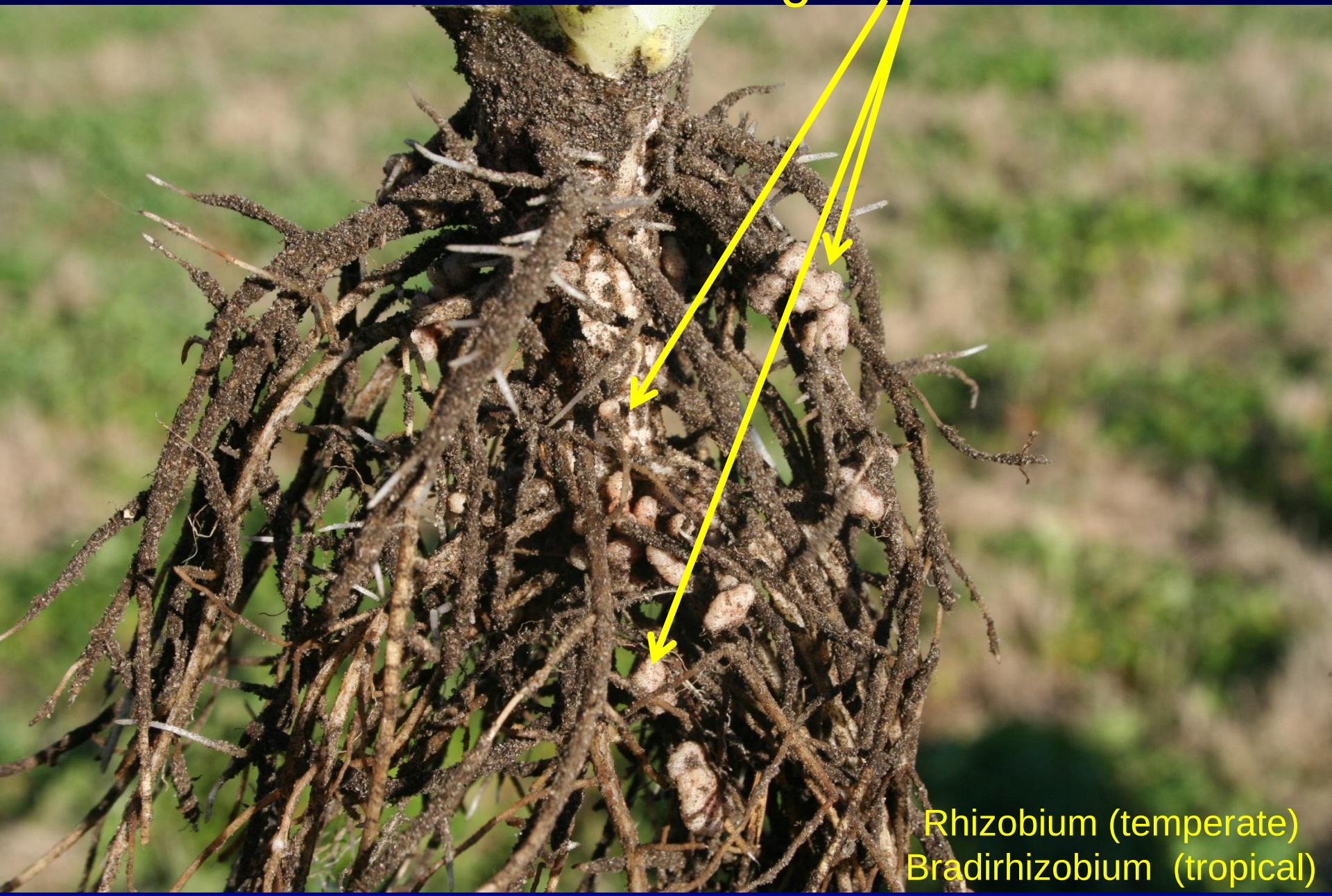
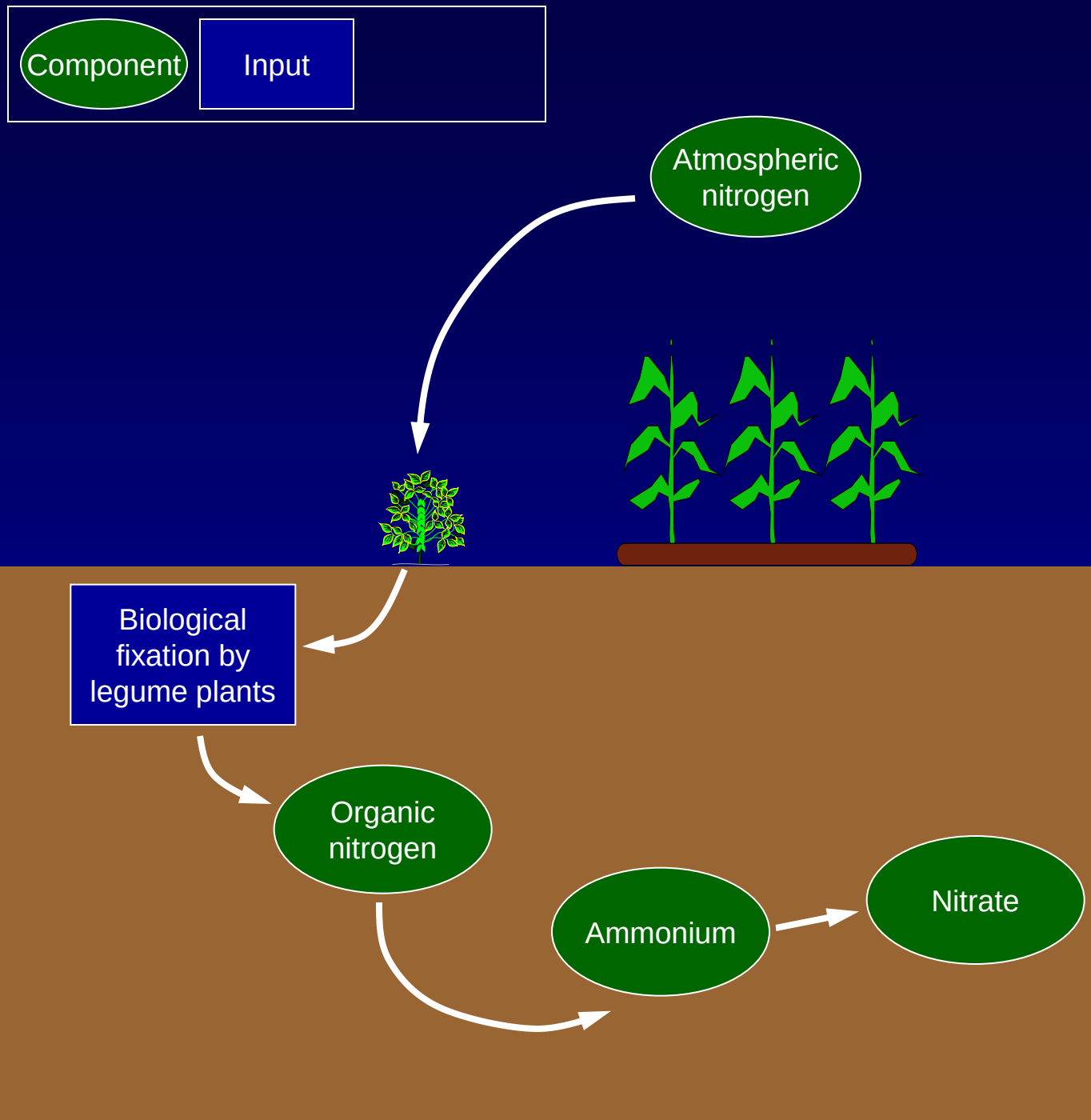
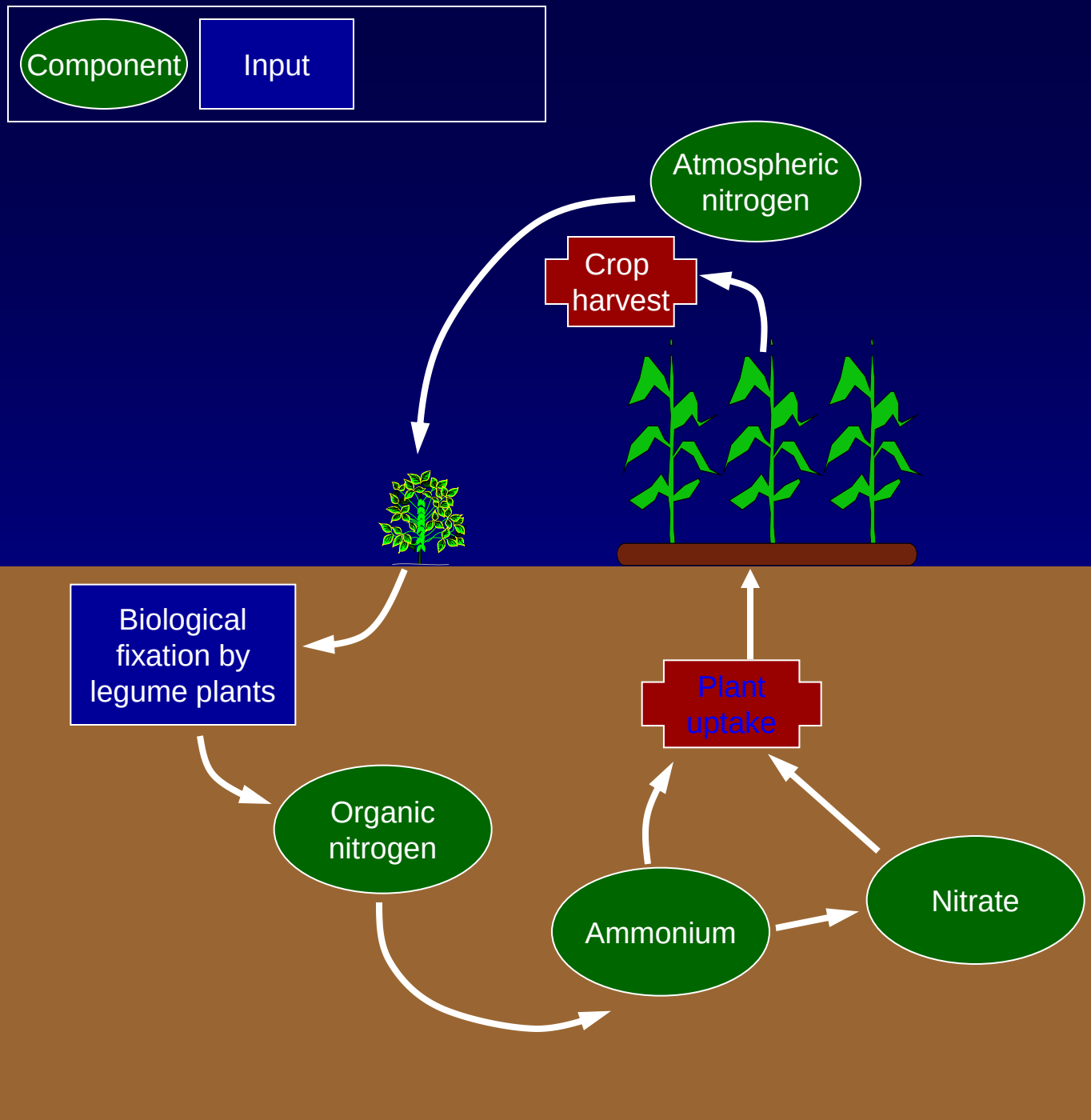
Nodules with N fixing bacteria




Component
Input
Atmospheric nitrogen
Biological fixation by legume plants
Organic nitrogen
Ammonium
Nitrate
IPNI


Component
Input
Atmospheric nitrogen
Crop harvest
Biological fixation by legume plants
Plant uptake
Organic nitrogen
Ammonium
Nitrate
IPNI

Species	Lb N fixed / Ac
• Ball clover	84
• Crimson clover	138
• Red clover	112
• Alfalfa	132-165
• Peas	125 -150
• Medics	111 - 131

Importance of Legumes

- Fix Nitrogen

- High Forage Quality

Importance of Legumes

- Fix Nitrogen (N fertilization)
- High Forage Quality
- Extend Production Window

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Importance of Legumes

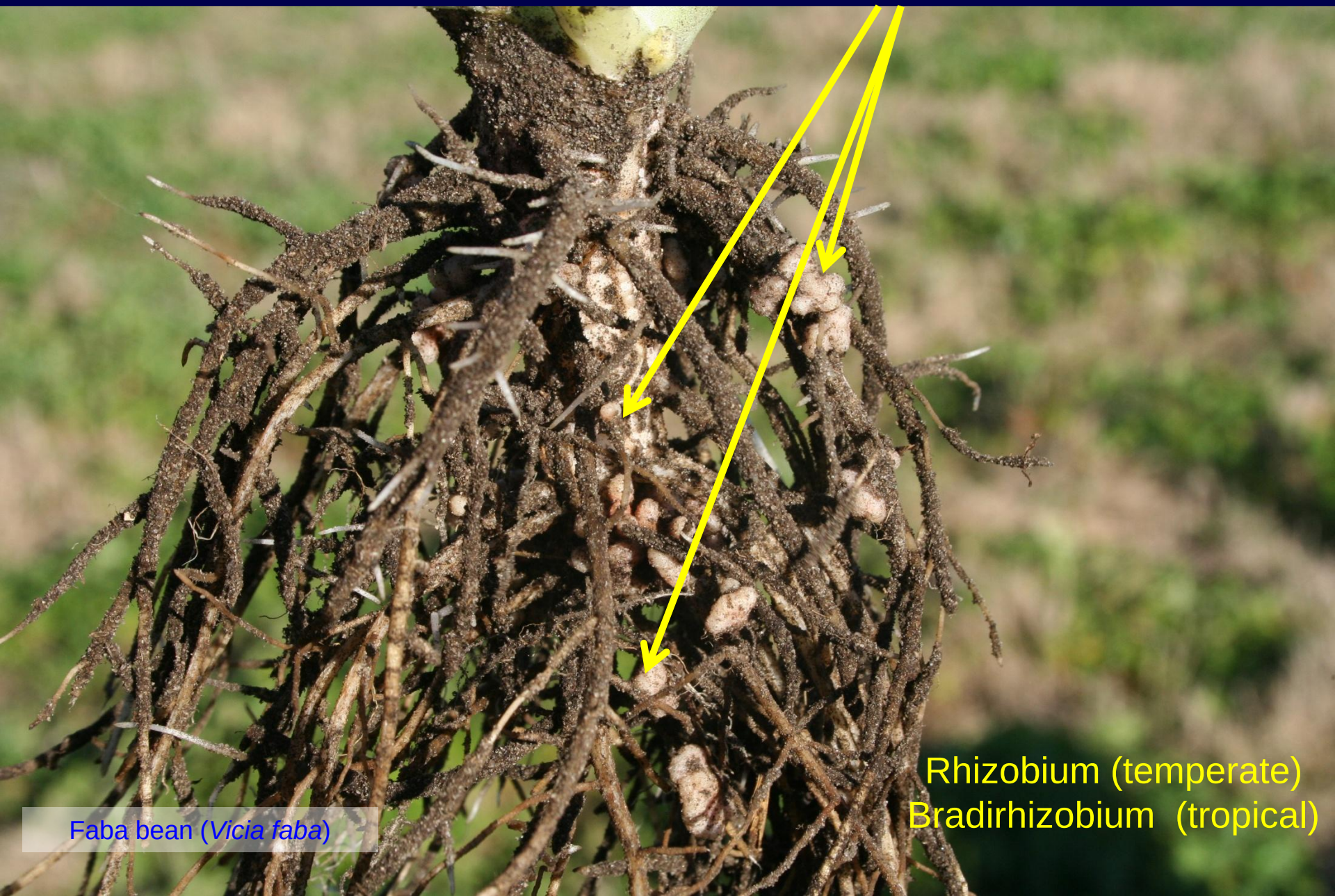
- Fix Nitrogen (N fertilization)
- High Forage Quality
- Extend Production window

- Drought tolerant (deep root system)

‘Hubam’ sweetclover

Two months after planting

Nodules with N fixing bacteria



Rhizobium (temperate)
Bradirhizobium (tropical)

Faba bean (*Vicia faba*)

Legume Risks

- Higher moisture requirement
- Increased management costs; requires
  - inoculation
  - more P and K
  - pH 6 or higher
  - control of grazing
- Limited use of Herbicide and Pesticide
- Limited production compared to grasses
- Bloat potential

Cross-Inoculation group	Inoc. type*	Cross-Inoc. Group	Inoc. Type	Cross-Inoc. Group	Inoc. type
Clover group		*Alfalfa group*		*Lupine group*	
Red clover	B	Alfalfa	A	White, Blue	H
White clover	B	Sweet clover	A	*Soybean group*	
Ladino	B	Black medic	N	Soybean	S
Ball clover	B	Bur clover	N	*Bean group*	
Alsike clover	B	*Vetch and Pea group*		Garden, kidney, pinto, wax bean	D
Crimson clover	R	Hairy vetch	C	Scarlet runner bean	Phaseolus Sp
Berseem clover	R	Big flower vetch	C		
Persian clover	R	Field pea	C		
Strawberry clover	T	Austrian Winter pea	C		
Subterranean clover	WR	Rough pea	C		
Arrowleaf clover	O	Common vetch	Vicia specific		

* Inoculum type designation of Lipha Tech Company of Nitragin Brand

Crimson Clover (Dixie)

- **Soil:** sandy loam
- **pH:** 5.5-7
- **Bloat potential:** Moderate
- **Production:** Very early
- **Use:** overseeded in pastures
- **Rate:** 15-20 lb/A

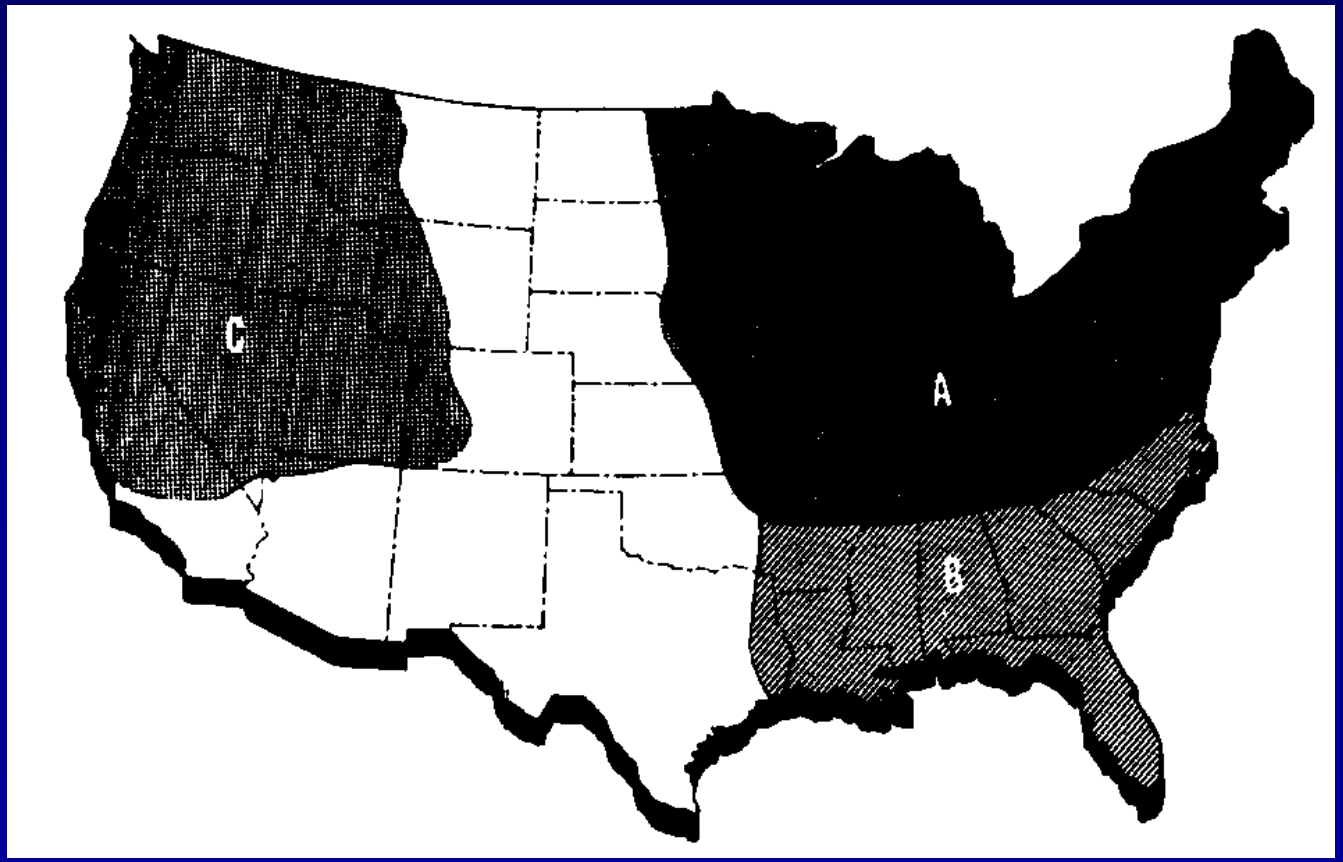
Red Clover (Cherokee, Southern Belle)

- Soil: sandy underlay by clay, high in clay and organic matter
- pH: 6 - 6.5
- Bloat potential: Moderate
- Production: By March, 3-4 cuttings (every 5 weeks)
- Use: overseeded in pastures Hay (cut at first bloom)
- Rate: 12-15 lb/A

Reduce rate to 1/3 if overseeding with cool-season forage blend

Red Clover

- Three major zones of adaptation:
  A. General region
  B. Piedmont and SE Coastal Plains
  C. Western USA



Red Clover Cultivars in the Southern Marketplace

- ~~Cherokee~~ - FL
- Southern Belle – FL
- Morning Star – (Cal west)
- Barduro – mid south (Barenburg)
- Red Ace – (Pennington)
- Kenland - KY
- Freedom - KY
- Redland III - IN


Chipley, FL

Berseem Clover (Bigbee)

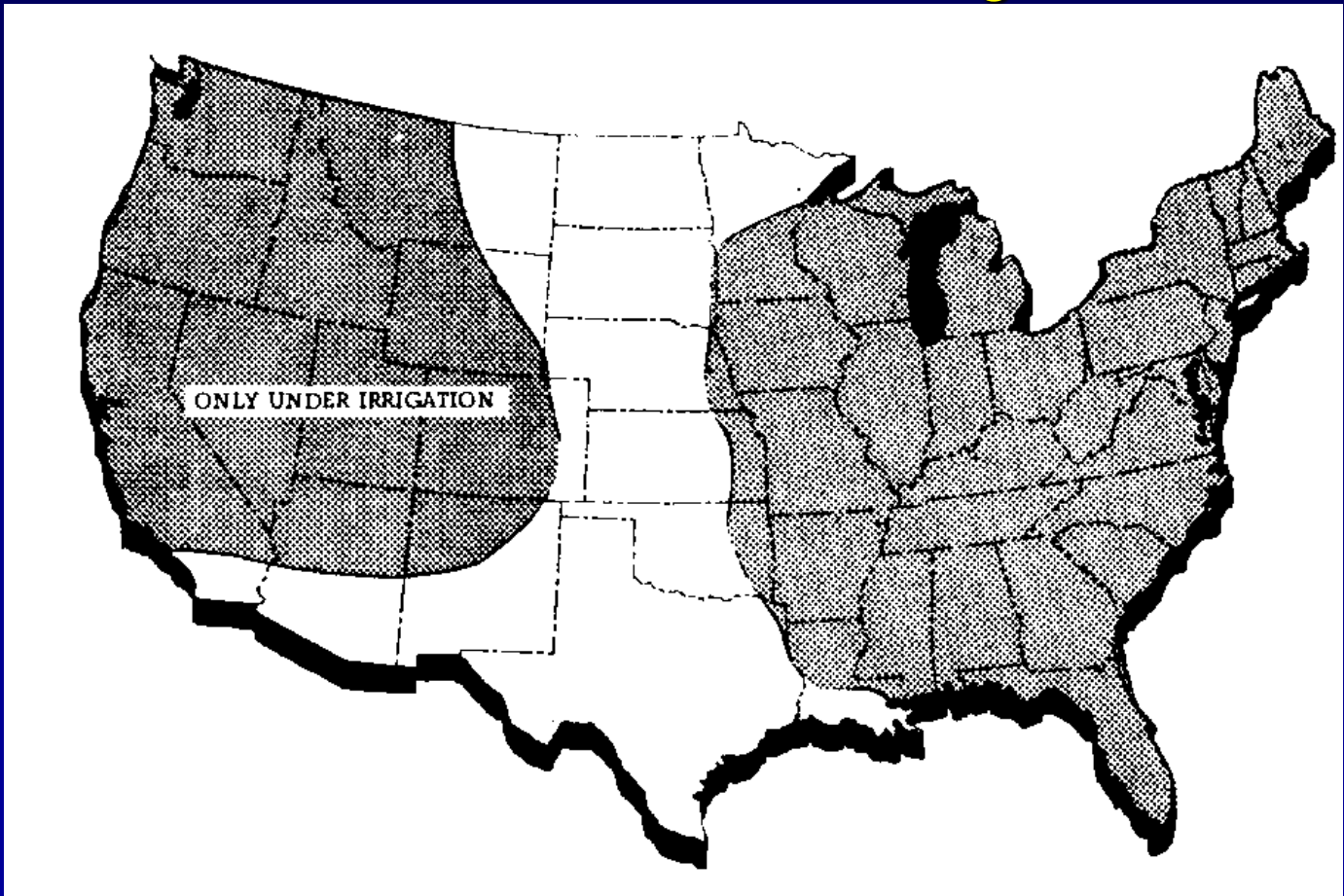
- Soil: Loam, clay, good tolerance of poor drainage
- pH: 6.0 to 8.0
- Bloat potential: Low
- Production: By March, 2 – 3
- Use: overseeded in pastures
  Hay
- Rate: 15 - 20 lb/A

White Clover

- Soil type: Clay loam
- Soil pH: 6-7
- High bloat potential
- Very Late Season of Production
- Requires extra water

White Clover

- Major zones of adaptation:
  - A. Mainly the Eastern USA
  - B. Some in west under irrigation



Sweet Clover (Hubam) (Melilotus sp.)

- Soil: Clay loam
- pH: 7 - 8
- Bloat potential: Very Low
- Season of Production: Late
- Use: overseeding pastures
- Rate: 8-1 2 lb/A
- Reseeding: Excellent
- Toxic compound: coumarin

Hubam

‘Hubam’ sweetclover

Alfalfa

- **Soil:** sandy loam
- **pH:** 6.5 to 7.5
- **Bloat potential:** Moderate to high
- **Production:** Late Fall/Spring
- **Use:** overseeded in pastures
- **Rate:** 15-20 lb/A

- **Varieties:**

Bulldog 805, Ameristand 855, Ameristand 901TS

Seedbed Preparation

a. Prepared seedbed: **Oct 1st**

b. Overseeding: **Oct – Nov 15th**

When overseeding your pastures:

- Select an adapted variety (soil pH, moisture, cold tolerance
- Control weeds and plant early -
- Optimum growth temperatures ~ 70^{o}F
- Look for weather patterns for planting opportunities
  - Cooler temp, and adequate moisture

Thanks! /Questions?

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