

Weed Management in Livestock Pastures

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http://www.extension.org/organic_production





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Understanding Weeds Management Options for Your Pasture

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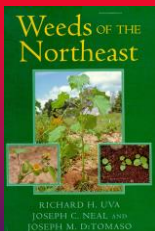
Weed Management

- Weed Identification
- Understanding your weeds
- Prevention Management
- Control Strategies

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Weeds of the Northeast



Softcover: \cong \$30.00

Cornell University Press
Sage House
512 East State Street
Ithaca, NY 14850

Phone: 607-277-2211

<http://www.cornellpress.cornell.edu>



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Understanding Your Weeds

Life Cycle

Annual



Biennial



Perennial

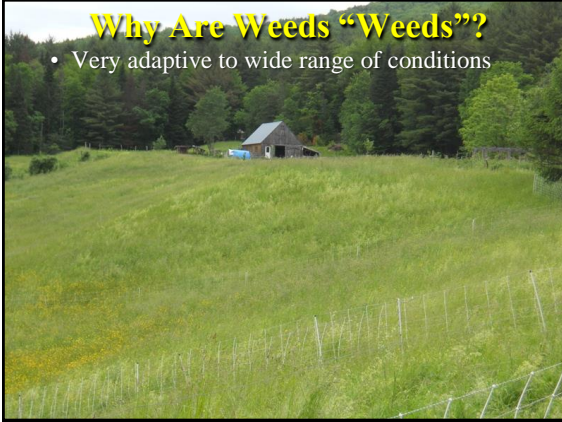


Why Are
Weeds
“Weeds”?



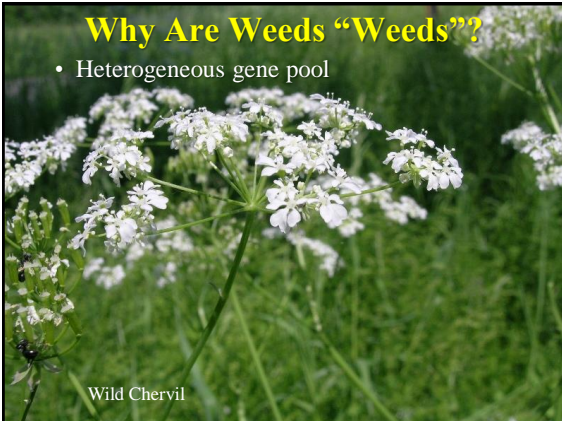
Why Are Weeds “Weeds”?

- Very adaptive to wide range of conditions



Why Are Weeds “Weeds”?

- Heterogeneous gene pool

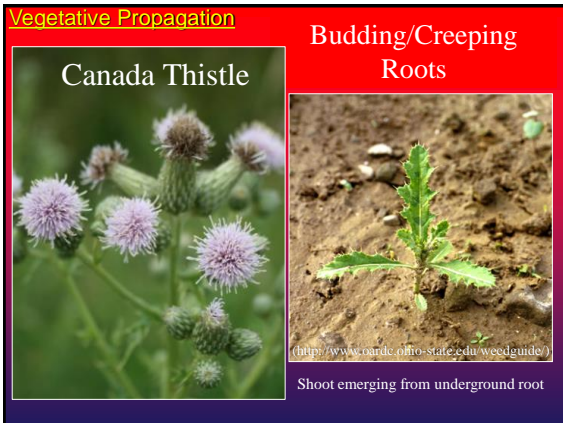


Why Are Weeds “Weeds”?

- Effective reproductive and dispersal strategies







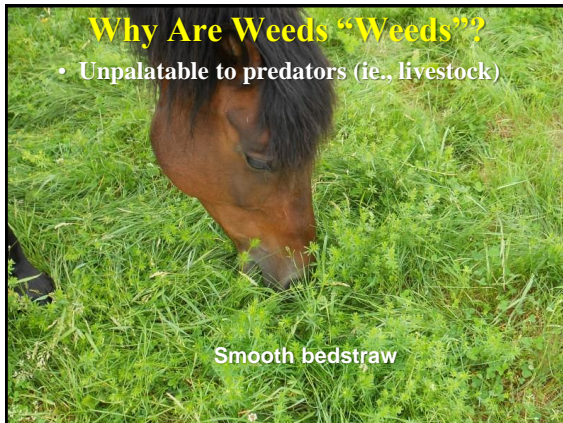


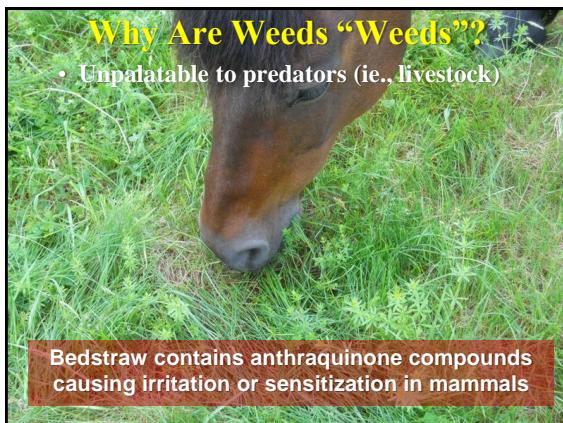














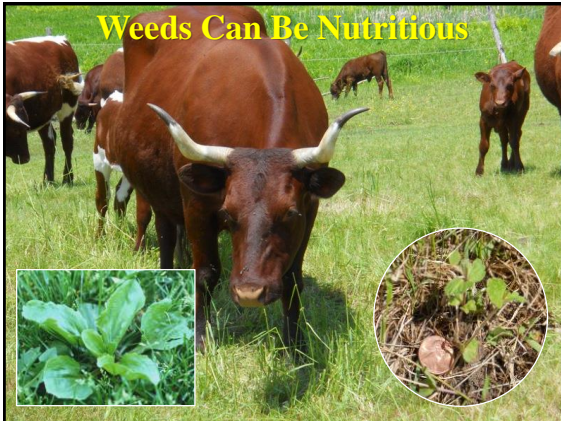


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Weeds Also Provide Eco-Services



Weeds Can Be Nutritious



Weeds Can Be Nutritious

Table 1. Crude protein and in vitro dry-matter digestibility (IVDM) of selected broadleaf and grassy weeds and three forage species.^a

Weed	% Crude protein	% IVDM
Broadleaves		
Horbit (<i>Lamium amplexicaule</i>)	20.1-16.2	78-75
Virginia pepperweed (<i>Lepidium virginicum</i>)	31.9-17.1	86-63
Curly dock (<i>Rumex crispus</i>)	29.9-16.1	73-51
Redroot pigweed (<i>Amaranthus retroflexus</i>)	23.9-10.6	73-64
Jimsonweed (<i>Datura stramonium</i>)	25.1-16.5	72-59
Grasses		
Cheat (<i>Bromus secalinus</i>)	23.4-13.8	81-61
Little barley (<i>Hordeum pusillum</i>)	23.6-13.8	82-62
Fall panicum (<i>Panicum dichotomiflorum</i>)	19.0-7.2	72-54
Yellow foxtail (<i>Setaria lutescens</i>)	17.5-14.3	73-57
Large crabgrass (<i>Digitaria sanguinalis</i>)	14.3-6.4	79-63
Forages		
Ladino clover 'Regal'	27.2-23.2	81-83
Tall fescue 'Kentucky 31'	22.1-12.5	78-67
Rye 'Wrens Abruzzi'	27.9-13.4	79-70

^aRange of values corresponds to samples evaluated from the vegetative stage to fruiting stage (broadleaves or forbs) or heading (grasses).
 Palatability for these weed species was not determined. (Adapted from Bosworth et al. 1980, 1985)

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Weed Prevention

Practice Good Grazing Management

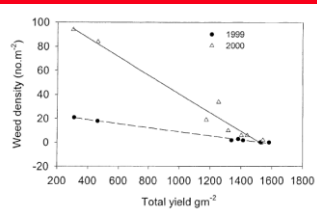
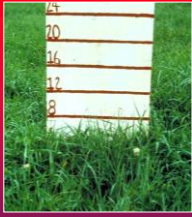


Weed Prevention

Practice Good Grazing Management

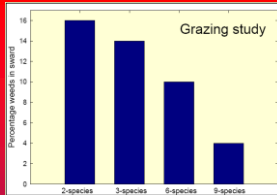
The best weed control in pasture is from competition by a strong stand of forage



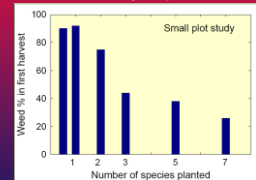
Weed Prevention**Maintain over 1300 lbs dry matter /acre**

“Overall, the present results suggest that maintaining productive pasture communities over 150 gm⁻² of aboveground biomass and an evenly distributed array of forage species may effectively reduce weed invasion. Increasing forage species diversity could be a potentially useful cultural method for controlling weeds in pasture ecosystems.”

B.F. Tracy, M.A. Sanderson / Agriculture, Ecosystems and Environment 102 (2004) 175–183

Weed Prevention**Pasture Diversity Can Help Reduce Weeds**

Sanderson et al. 2005. Agronomy J. 97:1465



Deak et al. 2009. Agronomy J. 101:408

Weed Prevention**Purchase and plant weed-free seed.**

Vermont Seed Company
20 Main Street
Green Mountain, VT

VERMONT PASTURE MIX

Lot. No 41-03-22

Purity	Variety and Kind	Germination
20.50%	Shademaster red clover	80%
22.72%	Dawn Kentucky bluegrass	85%
20.29%	Fungus free tall fescue	87%
15.90%	Dare perennial ryegrass	88%
17.00%	Empire birdsfoot trefoil	70%
Hard Seed (Empire birdsfoot trefoil):		10%

Other ingredients:
0.28% Weed seeds
3.20% Inert matter
0.22% Other crop seeds

Restricted noxious weeds: None

Tested June 2006

Net weight 50 pounds



Weed Prevention

Use of clean equipment between fields



http://www.paintractor.com/index.php?main_content=products_image&ID=17

Weed Prevention

Special attention to fence lines, field edges, rights-of-ways, railroads as source of new weeds



Weed Prevention

Isolation of introduced animals



Weed Management

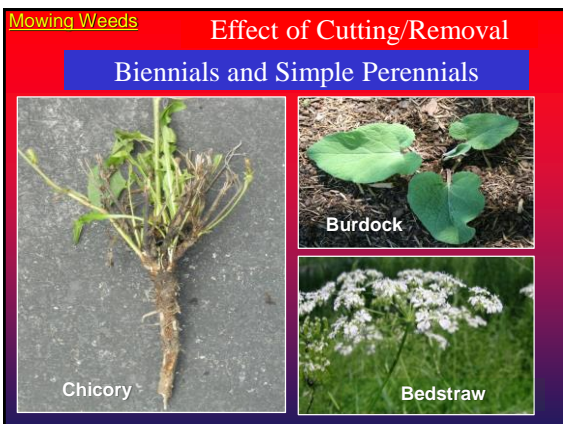
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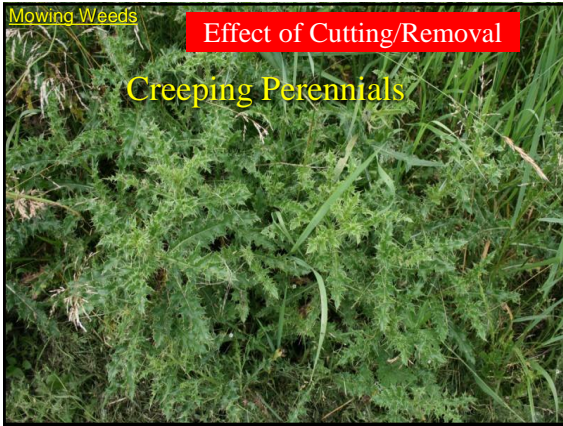






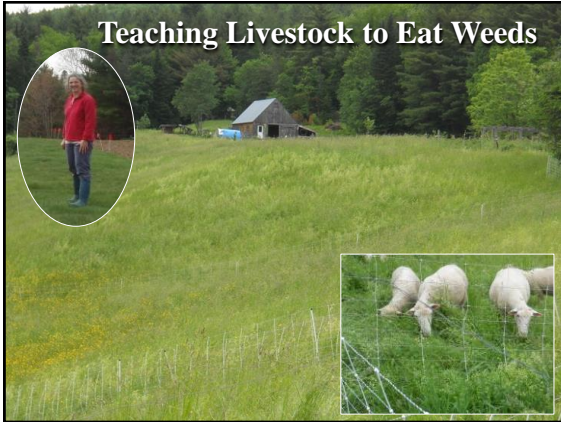












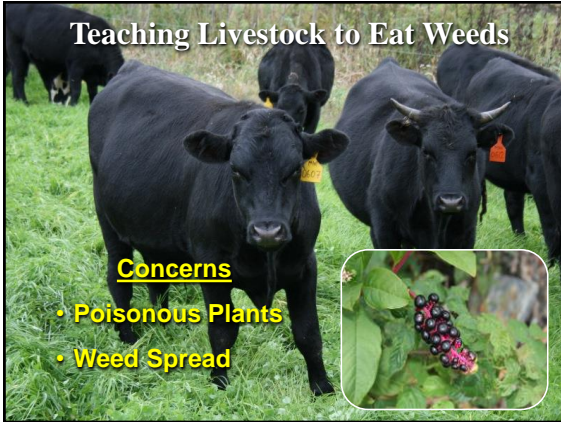




Teaching Livestock to Eat Weeds

Concerns


- Poisonous Plants
- Weed Spread



Multiple Tactics to Weed Management

"many little hammers"

- Prevention
- Cultural Practices and Management
- Mechanical/Cultivation
- Biological Control




You must not fight too often with one enemy, or you will teach him all your tricks of war.

- Napoleon I (1769-1821) Napoleon Bonaparte.

Understanding Weeds

Management Options for Your Pasture

Questions?



Find all upcoming webinars and archived eOrganic webinars at <http://www.extension.org/pages/25242>

Find the handout and the recording for this presentation at <http://www.extension.org/pages/64311>

Additional questions? Ask them at <http://www.extension.org/ask>

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