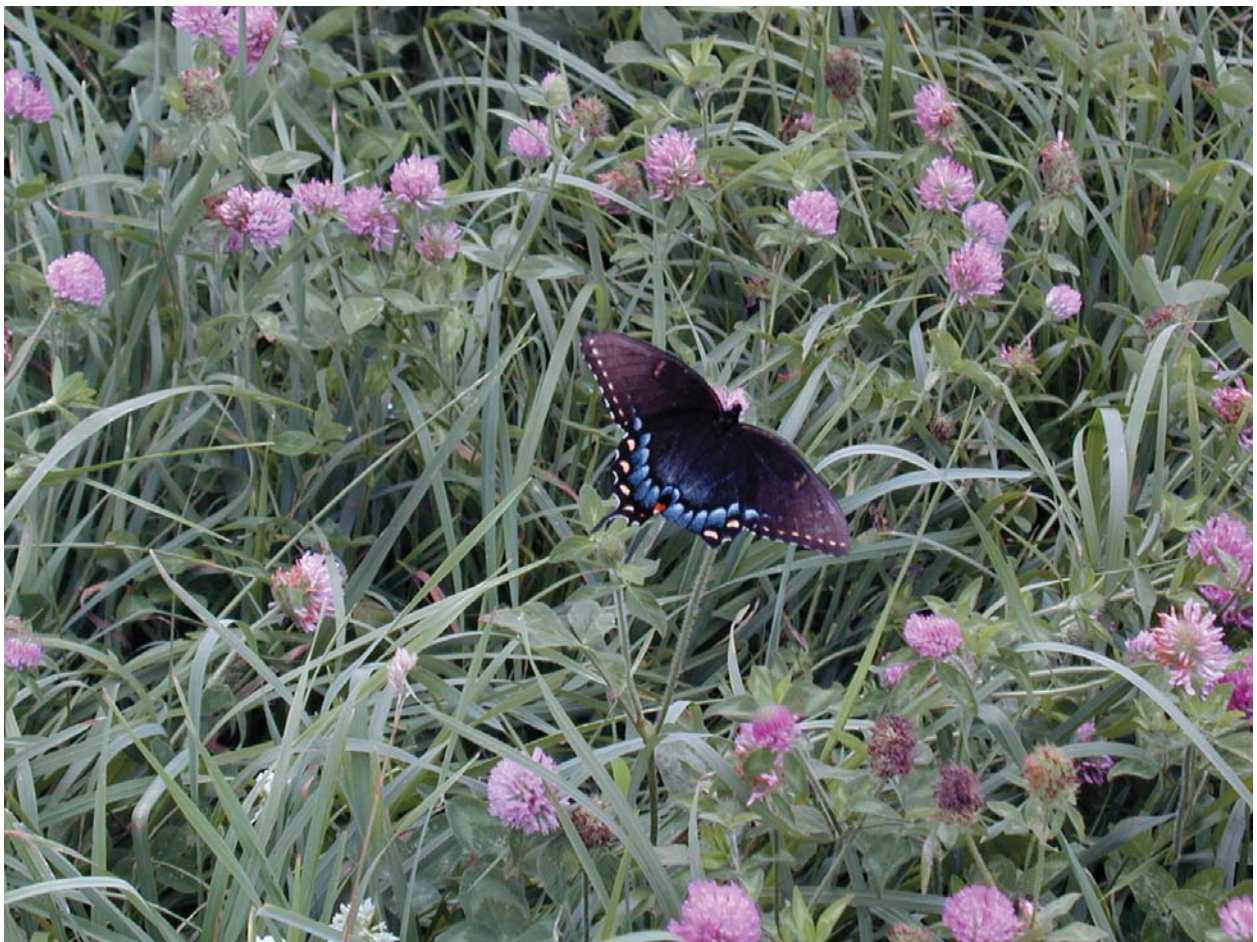


# Pasture Plants of the Northeastern US

USDA ARS PSWMRU  
University Park, PA



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*Second Edition: March 2018*

<http://grazingguide.net/pages/pasture-plants.html>

Temperate humid grazing lands are an important component of the landscape of the northeastern United States, as well as of the economy of this region, yet unlike their European counterparts, little is known about their basic ecology. During an eight-year survey of 44 farms across the northeastern United States, we sampled 136 modified Whittaker plots on pastureland, some multiple times (482 plots sampled across all years), and found 326 identifiable plant species. These pastures were highly diverse, with a mean of 9 species per 1 m<sup>2</sup>, and as many as 32 in 1 m<sup>2</sup> and 73 in the whole 1000 m<sup>2</sup> area sampled. Although most agronomic species have been introduced to the region, nearly half of the species we identified were native.

Figure 1. Locations of farms sampled for this survey.

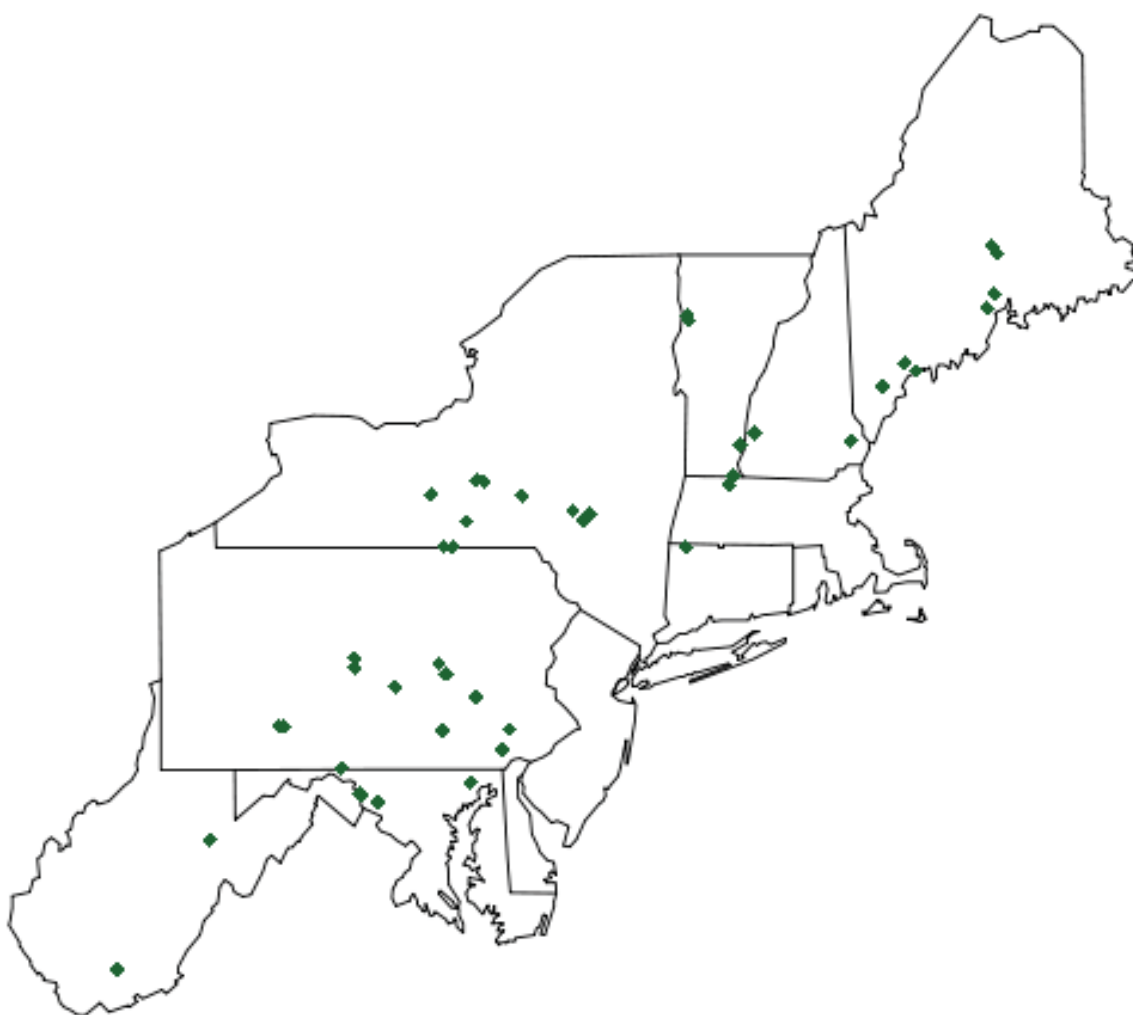


Table 1. Species richness by life history type and functional group.

	<b>Introduced</b>	<b>Native</b>	<b>TOTAL</b>
Annual forbs	38	27	65
Biennial forbs	15	2	17
Perennial forbs	51	73	124
<b>ALL FORBS</b>	<b>104</b>	<b>102</b>	<b>206</b>
Annual legumes	4	0	4
Perennial legumes	11	2	13
<b>ALL LEGUMES</b>	<b>15</b>	<b>2</b>	<b>17</b>
Annual grasses	18	4	22
Perennial grasses	25	15	40
<b>ALL GRASSES</b>	<b>43</b>	<b>19</b>	<b>62</b>
Annual vines	2	1	3
Perennial vines	3	2	5
<b>ALL VINES</b>	<b>5</b>	<b>3</b>	<b>8</b>
Woody perennials	9	24	33
<b>TOTAL</b>	<b>176</b>	<b>150</b>	<b>326</b>

This second edition adds many new species to the guide, with additional photographs and black and white line art from the 1913 edition of the three-volume *An Illustrated Flora of the Northern United States, Canada and the British Possessions*, by Britton and Brown.

Table 2. Species found on the highest percentage of farms.

	<b>Frequency</b>
Kentucky bluegrass	100.0
dandelion	100.0
white clover	100.0
orchardgrass	97.7
timothy	97.7
common plantain	97.7
red clover	97.7
yellow wood sorrel	90.9
quackgrass	88.6
tall fescue	88.6

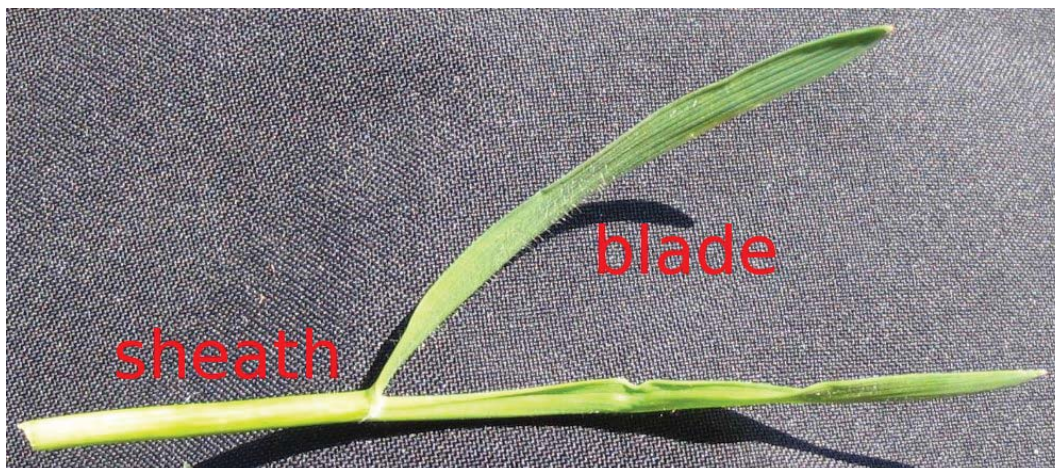
Table 3. Most abundant species by mean percent cover across all samples.

	<b>Cover (%)</b>
Kentucky bluegrass	16.4
tall fescue	13.5
orchardgrass	11.7
white clover	10.2
dandelion	5.0
perennial ryegrass	4.3
timothy	3.6
quackgrass	3.0
common plantain	2.1
red clover	2.1

## Parts of Grasses

**Sheath:** part of leaf wrapped around stem.

**Blade:** free part of leaf. May be folded or rolled when young.



At the point where the leaf blade meets the stem (top of the sheath), some species have a membrane called a **ligule**, or the leaf wraps around the stem as an **auricle**.

### Ligule



### Auricle



## Parts of Forbs

Forbs are broad-leaved plants, or non-grasses. Legumes are forbs, but for pasture plant lists are usually itemized separately because of their importance.

When identifying forbs, it can be useful to look at leaf arrangement and leaf shape, as well as flower color, shape, and number of petals.

**Arrangement:** Leaves can be arranged **alternately** along the stem, in pairs (**opposite**), or **whorled**, with multiple leaves at a single point. Leaves can also form a **rosette**, with no stem.



Alternate

Opposite

Whorled

Rosette

**Shape:** Leaves can be entire (with smooth margins), toothed, lobed, or dissected.

Entire

Toothed

Lobed

Dissected



Leaves can also be compound, with many leaflets making up a single leaf. The leaflets can be arranged palmately, like fingers on a hand, or pinnately, like a feather.

**Palmate**



**Pinnate**



In some species, the base of the leaf wraps around or **clasps** the stem.



Some forbs have **stipules**, growths at the base of the leaf that may be leafy or spiny.



## Redtop

*Agrostis gigantea* Roth (AGGI2)

**Species description:** Redtop is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Rhizomes; grows in moist soil.

**Similar species:** Creeping bentgrass.

**Abundance in the Northeast:** Redtop was found on 18% of the farms sampled and 17% of the pastures. Its average cover was 6.3% where present (range 0.2 - 58%).



Illustration 1: Redtop





## Creeping bentgrass

*Agrostis stolonifera* L. (AGST2)

**Species description:** Creeping bentgrass is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Creeping rhizome; moist places

**Similar species:** Redtop.

**Abundance in the Northeast:** Creeping bentgrass was found on 16% of the farms sampled and 8% of the pastures. Its average cover was 5.1% where present (range 0.8 - 17.2%).



Illustration 2: Creeping bentgrass



## Meadow foxtail

*Alopecurus pratensis* L. (ALPR3)

**Species description:** Meadow foxtail is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** rough leaves, soft 2" panicle

**Similar species:** other Foxtails

**Abundance in the Northeast:** Meadow foxtail was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 3: Meadow foxtail



## Broomsedge

*Andropogon virginicus* L. (ANVI2)

**Species description:** Broomsedge is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:**

**Similar species:**

**Abundance in the Northeast:** Broomsedge was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 5.1% where present (range 0.1 - 19.2%).



Illustration 4: Broomsedge



## Sweet vernalgrass

*Anthoxanthum odoratum* L. (ANOD)

**Species description:** Sweet vernalgrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Pleasant sweet smell.

**Similar species:** velvetgrass

**Abundance in the Northeast:** Sweet vernalgrass was found on 20% of the farms sampled and 18% of the pastures. Its average cover was 3.8% where present (range 0.1 - 22.5%).



Illustration 5: Sweet vernalgrass



## Common oat

*Avena sativa* L. (AVSA)

**Species description:** Common oat is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** straight awns or none at all

**Similar species:** wild oat; barley; wheat; rye

**Abundance in the Northeast:** Common oat was found on 9% of the farms sampled and 3% of the pastures. Its average cover was 30.4% where present (range 1.8 - 59%).

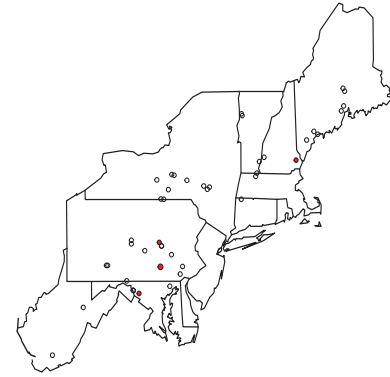


Illustration 6: Common oat



## Matua or prairie brome

*Bromus catharticus* Vahl (BRCA6)

**Species description:** Matua brome is an introduced annual or perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Membranous ligule; no auricle.

**Similar species:** Other bromes.

**Abundance in the Northeast:** Matua brome; prairie brome was found on 11% of the farms sampled and 9% of the pastures. Its average cover was 1.4% where present (range 0.1 - 8.1%).



Illustration 7: Matua brome



## Meadow brome

*Bromus commutatus* Schrad. (BRR2)

**Species description:** Meadow brome is an introduced annual grass. It is usually described as a forage species.

**Identifying characteristics:** Rhizomatous bunchgrass.

**Similar species:** Other bromes.

**Abundance in the Northeast:** Meadow brome was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 5.8% where present (range 0.2 - 11.5%).



Illustration 8: Meadow brome



## Smooth brome

*Bromus inermis* Leyss. (BRIN2)

**Species description:** Smooth brome is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Smooth or hairy on leaf sheath; smooth on leaf blade. M-shaped fold on leaf. Tall and robust grass.

**Similar species:** Timothy; Downy brome.

**Abundance in the Northeast:** Smooth brome was found on 32% of the farms sampled and 25% of the pastures. Its average cover was 3% where present (range 0.1 - 15.5%).



Illustration 9: Smooth brome





## Downy brome

*Bromus tectorum* L. (BRTE)

**Species description:** Downy brome is an introduced annual grass. It is not usually described as a forage species.

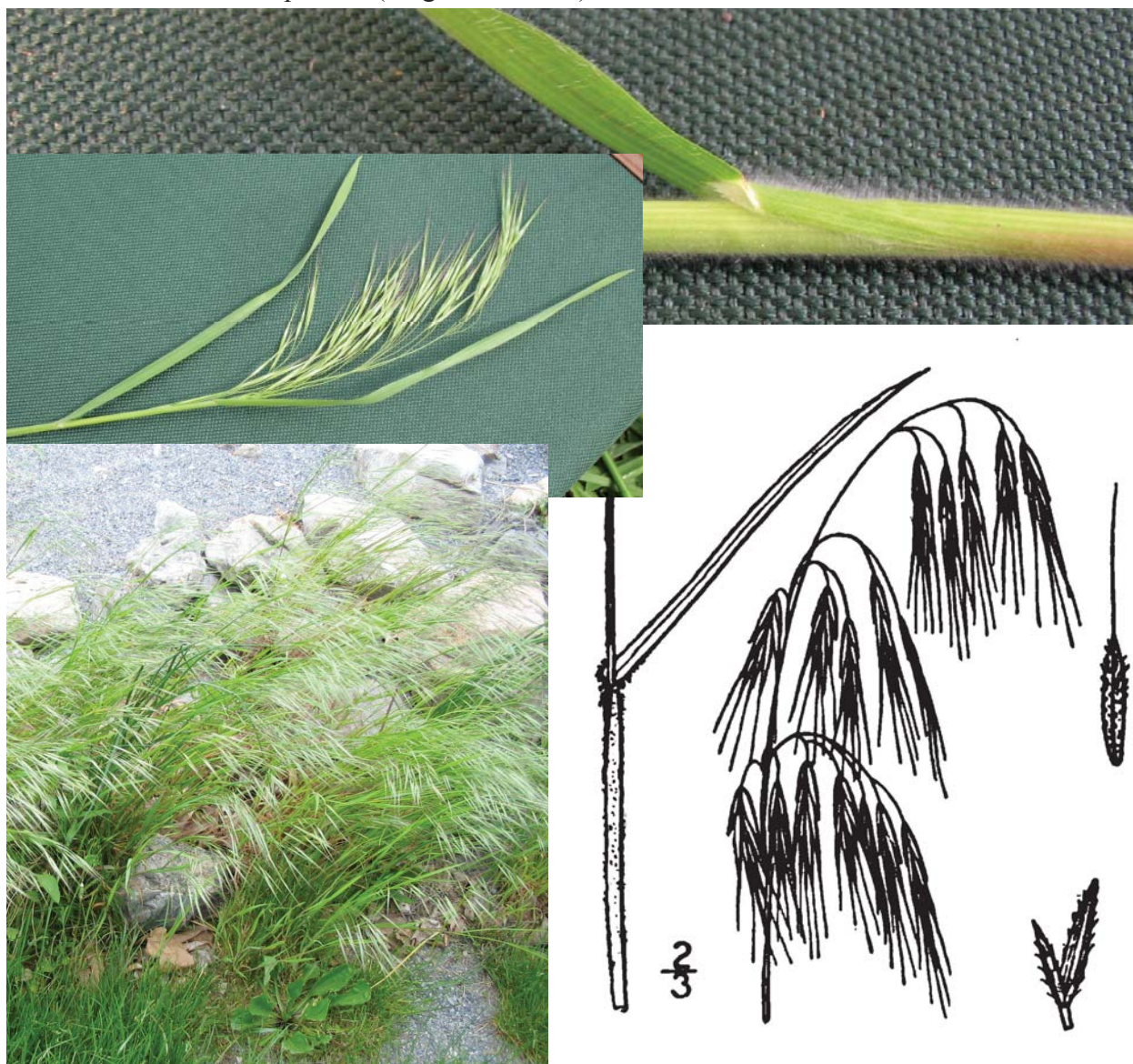
**Identifying characteristics:** Soft grass; lack auricles, membranous ligule that unlike velvetgrass is smooth on back; very hairy leaves and stem.

**Similar species:** velvetgrass; smooth brome

**Abundance in the Northeast:** Downy brome was found on 18% of the farms sampled and 11% of the pastures. Its average cover was 0.5% where present (range 0.1 - 1.8%).



Illustration 10: Downy brome



## Bluejoint grass

*Calamagrostis canadensis* (Michx.) Beauv.(CACA4)

**Species description:** Bluejoint grass is a native perennial grass. Much of the wild hay for northern prairie states. It is not usually described as a forage species.

**Identifying characteristics:** 4-8 mm wide leaves, 15 cm long panicle, grows to 1.25 meters in height.

**Similar species:**

**Abundance in the Northeast:** Bluejoint grass was found on 5% of the farms sampled and 4% of the pastures. Its average cover was 1.5% where present (range 0.3 - 3.4%).



Illustration 11: Bluejoint grass



## Bermuda grass

*Cynodon dactylon* (L.) Pers. (CYDA)

**Species description:** Bermuda grass is an introduced perennial grass. It is not usually described as a forage species in the northeastern United States.

**Identifying characteristics:** spreading rhizomes and stolons; white ring of hairs in collar region; margins slightly rough.



**Similar species:** Crabgrass and Nimblewill

Illustration 12: Bermuda grass

**Abundance in the Northeast:** Bermuda grass was found on 7% of the farms sampled and 4% of the pastures. Its average cover was 5.1% where present (range 2.8 - 7%).



## Yellow nutsedge

*Cyperus esculentus* L. (CYES)

**Species description:** Yellow nutsedge is an introduced perennial sedge. It is not usually described as a forage species.

**Identifying characteristics:** Yellow-green narrow blades; Triangular stem.

**Similar species:** Purple nutsedge

**Abundance in the Northeast:** Yellow nutsedge was found on 14% of the farms sampled and 8% of the pastures. Its average cover was 1.4% where present (range 0.2 - 4.1%).



Illustration 13: Yellow nutsedge



## Orchardgrass

*Dactylis glomerata* L. (DAGL)

**Species description:** Orchardgrass is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Flat stem; bluish-green leaves; prominent ligule; no auricles.

**Similar species:** Goosegrass

**Abundance in the Northeast:** Orchardgrass was found on 98% of the farms sampled and 89% of the pastures. Its average cover was 14.4% where present (range 0.1 - 77%).



Illustration 14: Orchardgrass



## Povertygrass

*Danthonia spicata* (L.) Beauv. ex Roemer amp  
J.A. Schultes (DASP2)

**Species description:** Povertygrass is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** curly basal leaves; 2 to 5 cm long panicle, with few flowers.



**Similar species:** Oatgrass

Illustration 15: Povertygrass

**Abundance in the Northeast:** Povertygrass was found on 11% of the farms sampled and 5% of the pastures. Its average cover was 1% where present (range 0.1 - 2.6%).



## Deertongue grass

*Dichanthelium clandestinum* (L.) Gould (DICL)

**Species description:** Deertongue grass is a native perennial grass. It is not usually described as a forage species.

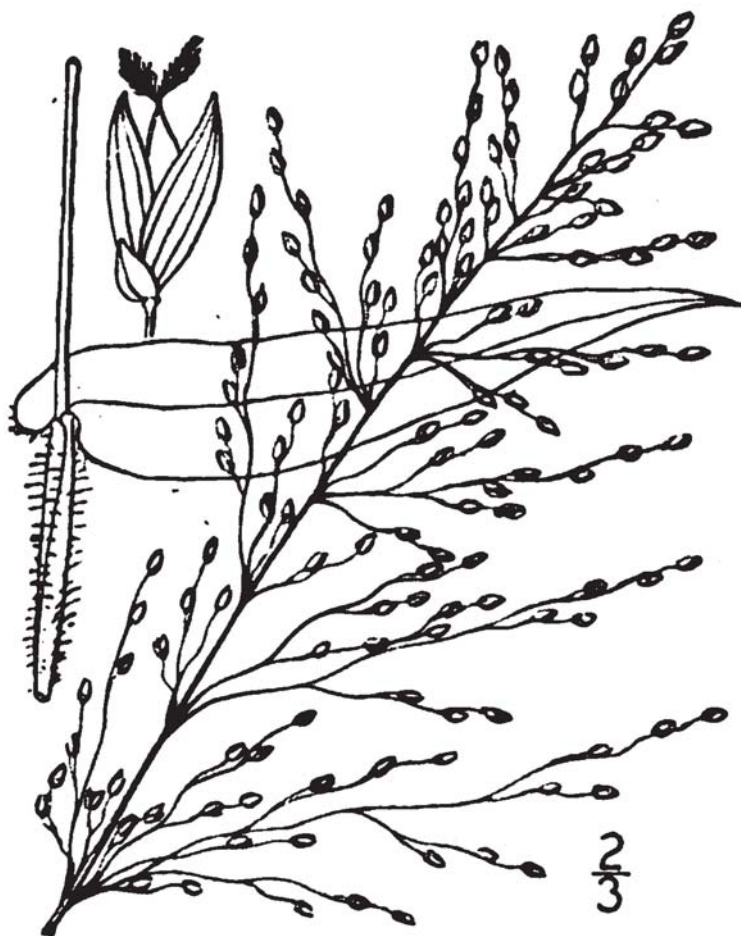
**Identifying characteristics:** Broad hairy leaves.

**Similar species:** Witchgrass.

**Abundance in the Northeast:** Deertongue grass was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0.2% where present (range 0.1 - 0.3%).



Illustration 16: Deertongue grass



## Smooth crabgrass

*Digitaria ischaemum* (Schreb.) Schreb. ex Muhl.  
(DIIS)

**Species description:** Smooth crabgrass is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Smooth leaves.

**Similar species:** Large crabgrass.

**Abundance in the Northeast:** Smooth crabgrass was found on 25% of the farms sampled and 18% of the pastures. Its average cover was 8.8% where present (range 0.1 - 71.3%).



Illustration 17: Smooth crabgrass





## Large or northern crabgrass

*Digitaria sanguinalis* (L.) Scop. (DISA)

**Species description:** Large crabgrass is a native annual grass. It is not usually described as a forage species.

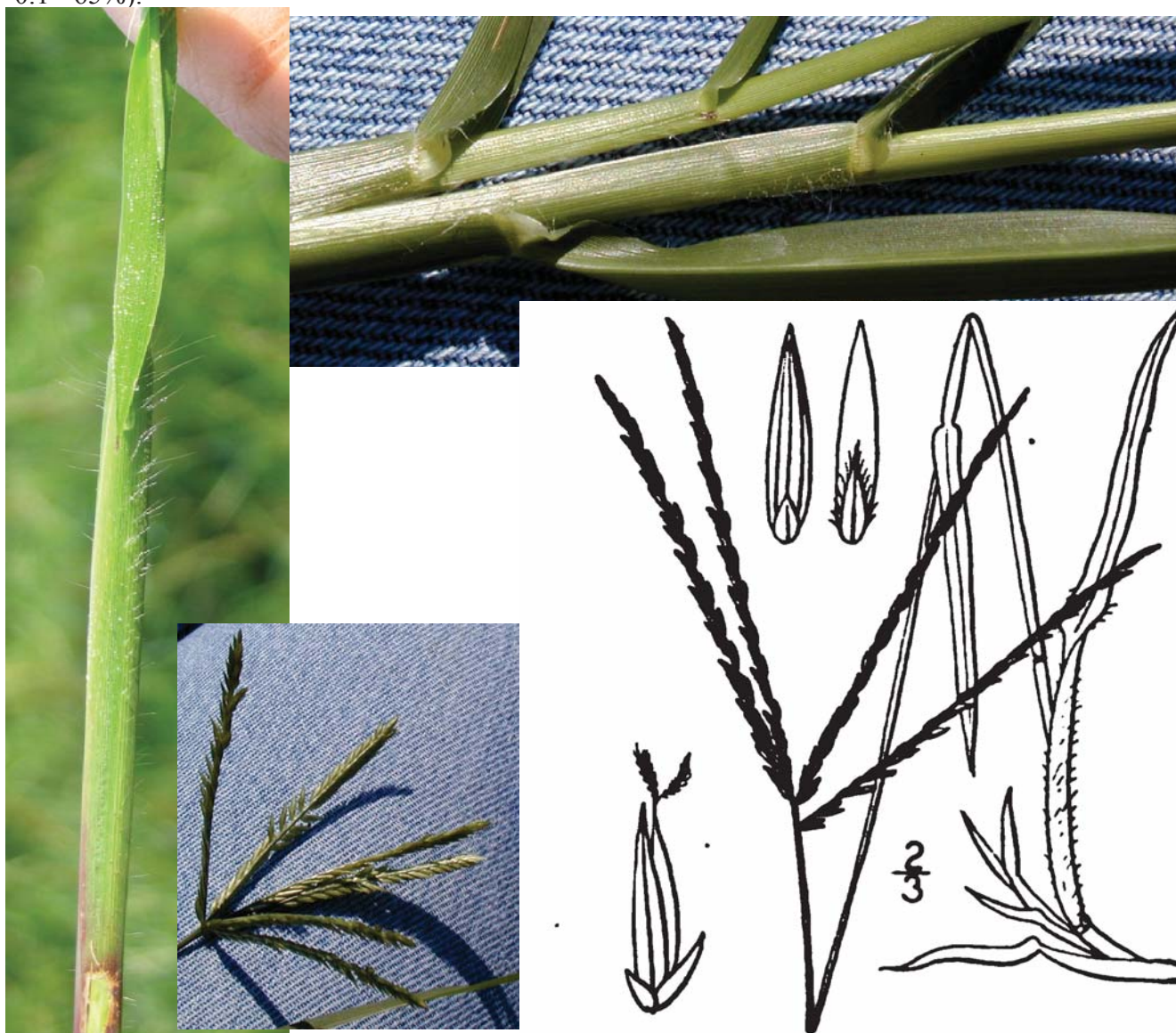
**Identifying characteristics:** lack auricles; membranous ligule; broad collar with long hairs at margin; Hairy leaves and sheaths.

**Similar species:** Smooth crabgrass.

**Abundance in the Northeast:** Large crabgrass; northern crabgrass was found on 45% of the farms sampled and 39% of the pastures. Its average cover was 4.8% where present (range 0.1 - 65%).



Illustration 18: Large crabgrass



## Barnyardgrass

*Echinochloa crus-galli* (L.) Beauv. (ECCR)

**Species description:** Barnyardgrass is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Very robust; white midrib on leaves; lack auricles and ligule; distinctive flower head.

**Similar species:** Johnsongrass and fall panicum

**Abundance in the Northeast:** Barnyardgrass was found on 52% of the farms sampled and 38% of the pastures. Its average cover was 1.9% where present (range 0.1 - 17.6%).



## Spikerush

*Eleocharis* sp. R. Br. (ELEOC)

**Species description:** Spikerush is a native perennial sedge. It is not usually described as a forage species.

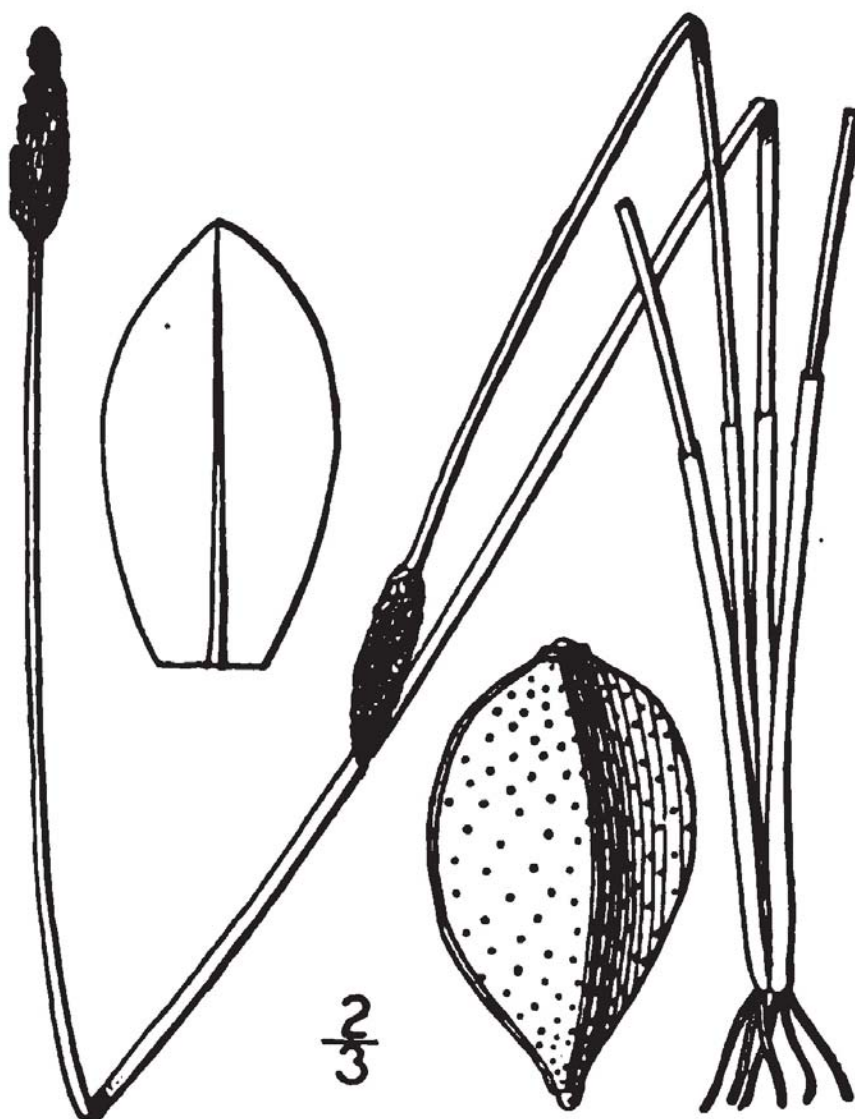
**Identifying characteristics:** Moist places.

**Similar species:** Slender rush.

**Abundance in the Northeast:** Spikerush was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0.5% where present (range 0.5 - 0.5%).



Illustration 20: Spikerush



## Goosegrass

*Eleusine indica* (L.) Gaertn. (ELIN3)

**Species description:** Goosegrass is an introduced annual grass. It is not usually described as a forage species.

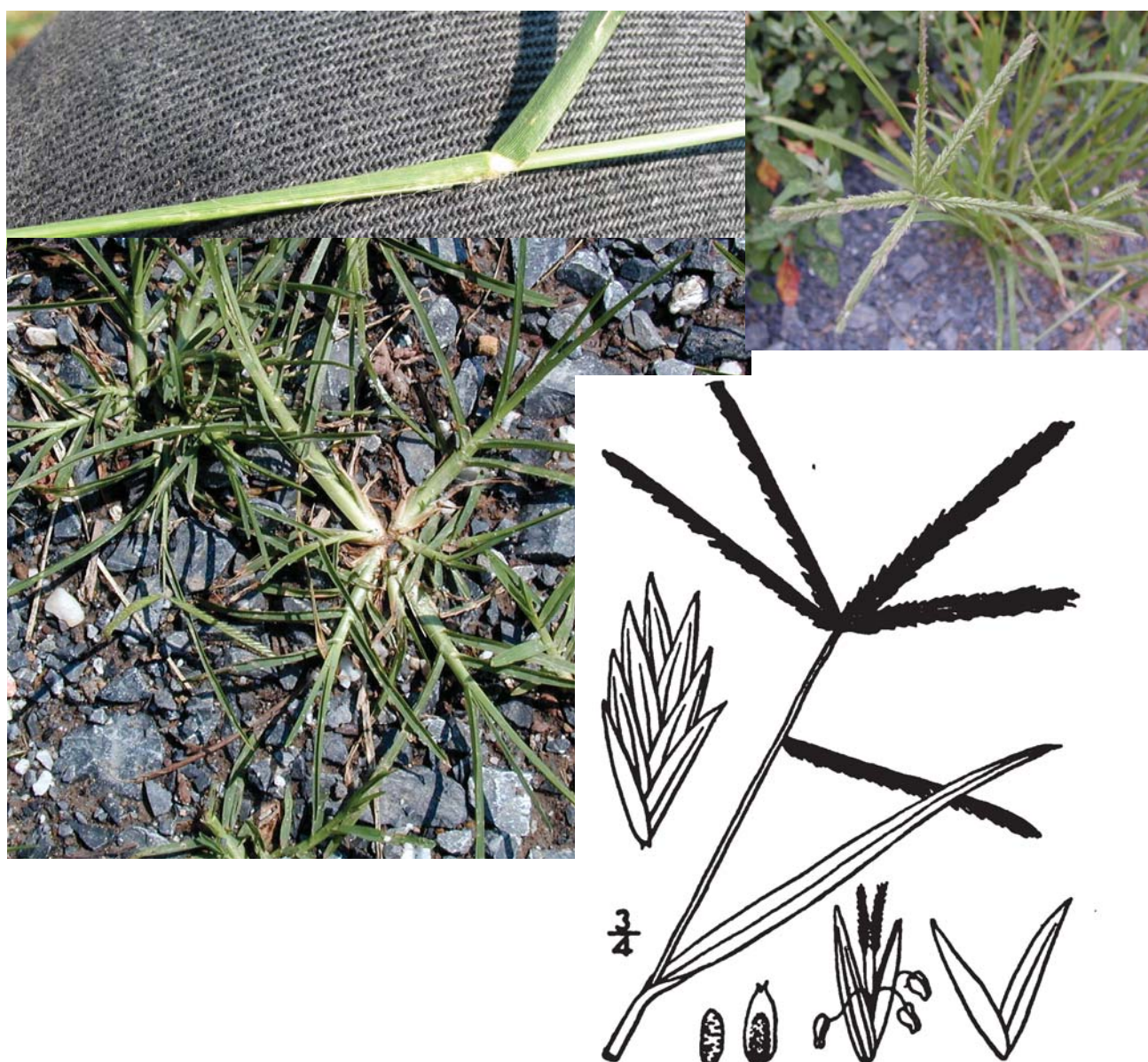
**Identifying characteristics:** folded along midvein; lack auricles; membranous unevenly toothed ligule ( $\leq 1$  mm); collar is broad; and white at base.

**Similar species:** crabgrass and Orchardgrass

**Abundance in the Northeast:** Goosegrass was found on 16% of the farms sampled and 11% of the pastures. Its average cover was 4.4% where present (range 0.1 - 24%).



Illustration 21: Goosegrass



## Quackgrass

*Elymus repens* (L.) Gould (ELRE4)

**Species description:** Quackgrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** leaves rolled; ligule is short and membranous; auricles are narrow and clasp the stem; leaves hairy to smooth upper and smooth lower surface.

**Similar species:** Tall fescue and ryegrasses

**Abundance in the Northeast:** Quackgrass was found on 89% of the farms sampled and 79% of the pastures. Its average cover was 4.7% where present (range 0.1 - 61%).



Illustration 22: Quackgrass



## Red fescue

*Festuca rubra* L. (FERU2)

**Species description:** Red fescue is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Narrow, somewhat stiff leaves. Creeping rootstocks bent at reddish base.

**Similar species:** fine fescue and agrostis species

**Abundance in the Northeast:** Red fescue was found on 7% of the farms sampled and 5% of the pastures. Its average cover was 15.5% where present (range 0.8 - 34.7%).



Illustration 23: Red fescue



## Velvetgrass

*Holcus lanatus* L. (HOLA)

**Species description:** Velvetgrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** lack auricles; membranous ligule; hairy on back surface of ligule; dense soft hairs on both sides of leaves and velvety hairy sheaths.

**Similar species:** downy brome

**Abundance in the Northeast:** Velvetgrass was found on 16% of the farms sampled and 11% of the pastures. Its average cover was 1.4% where present (range 0.1 - 5%).



Illustration 24: Velvetgrass



## Common barley

*Hordeum vulgare* L. (HOVU)

**Species description:** Common barley is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** long crooked awns; esrlets in three

**Similar species:** wild oat; barley; wheat

**Abundance in the Northeast:** Common barley was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).

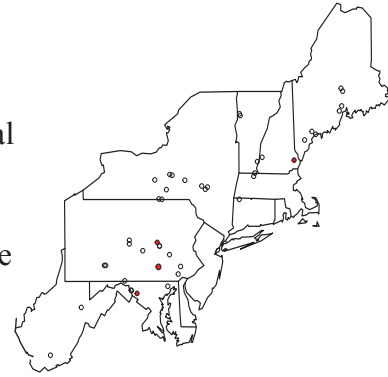


Illustration 25: Common barley





## Common rush

*Juncus effusus* L. (JUEF)

**Species description:** Common rush is a native perennial rush. It is not usually described as a forage species.

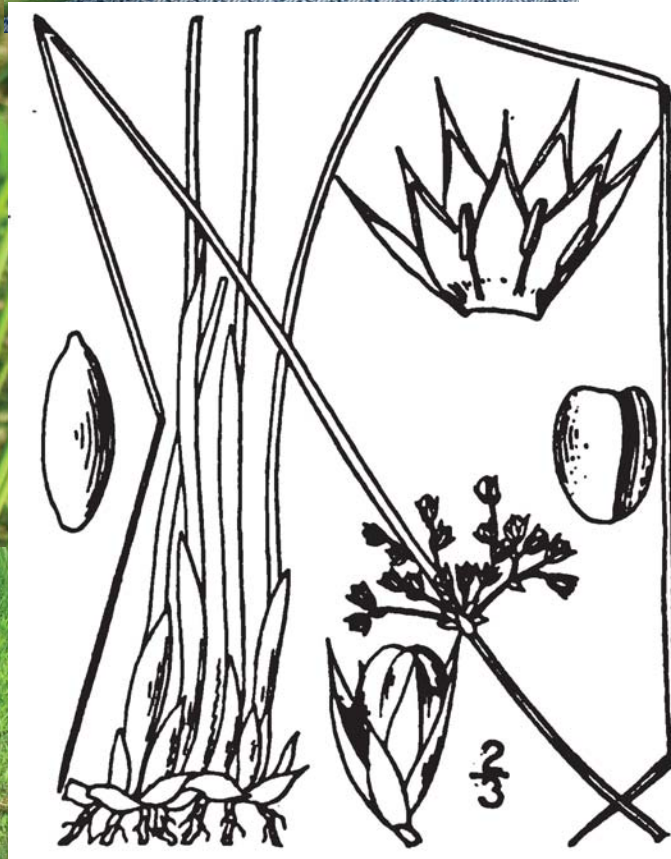
**Identifying characteristics:** Round pithy stem.

**Similar species:** Slender rush.

**Abundance in the Northeast:** Common rush was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0.6% where present (range 0.1 - 1.9%).



Illustration 26: Common rush



## Slender rush

*Juncus tenuis* Willd. (JUTE)

**Species description:** Slender rush is a native perennial rush. It is not usually described as a forage species.

**Identifying characteristics:** Round solid stem, smaller than soft rush.

**Similar species:** Soft rush.

**Abundance in the Northeast:** Slender rush was found on 48% of the farms sampled and 26% of the pastures. Its average cover was 0.7% where present (range 0.1 - 4.2%).



Illustration 27: Slender rush



## Tall fescue

*Lolium arundinaceum* (Schreb.) S.J. Darbyshire (LOAR10)

**Species description:** Tall fescue is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Round stem; parallel veins on a flat thick leaf; dull above, glossy below; short auricle with fringe of hair; short membranous ligule.

**Similar species:** Perennial ryegrass.

**Abundance in the Northeast:** Tall fescue was found on 89% of the farms sampled and 84% of the pastures. Its average cover was 17.3% where present (range 0.1 - 89.9%).

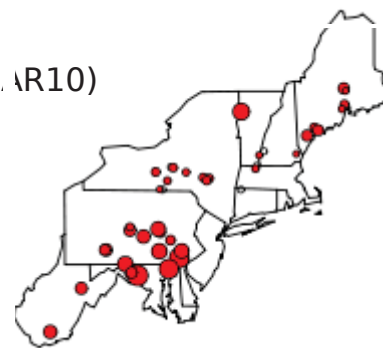


Illustration 28 : Tall fescue



## Perennial ryegrass

*Lolium perenne* L. (LOPE)

**Species description:** Perennial ryegrass is an introduced annual, biennial or perennial grass. It is usually described as a forage species.

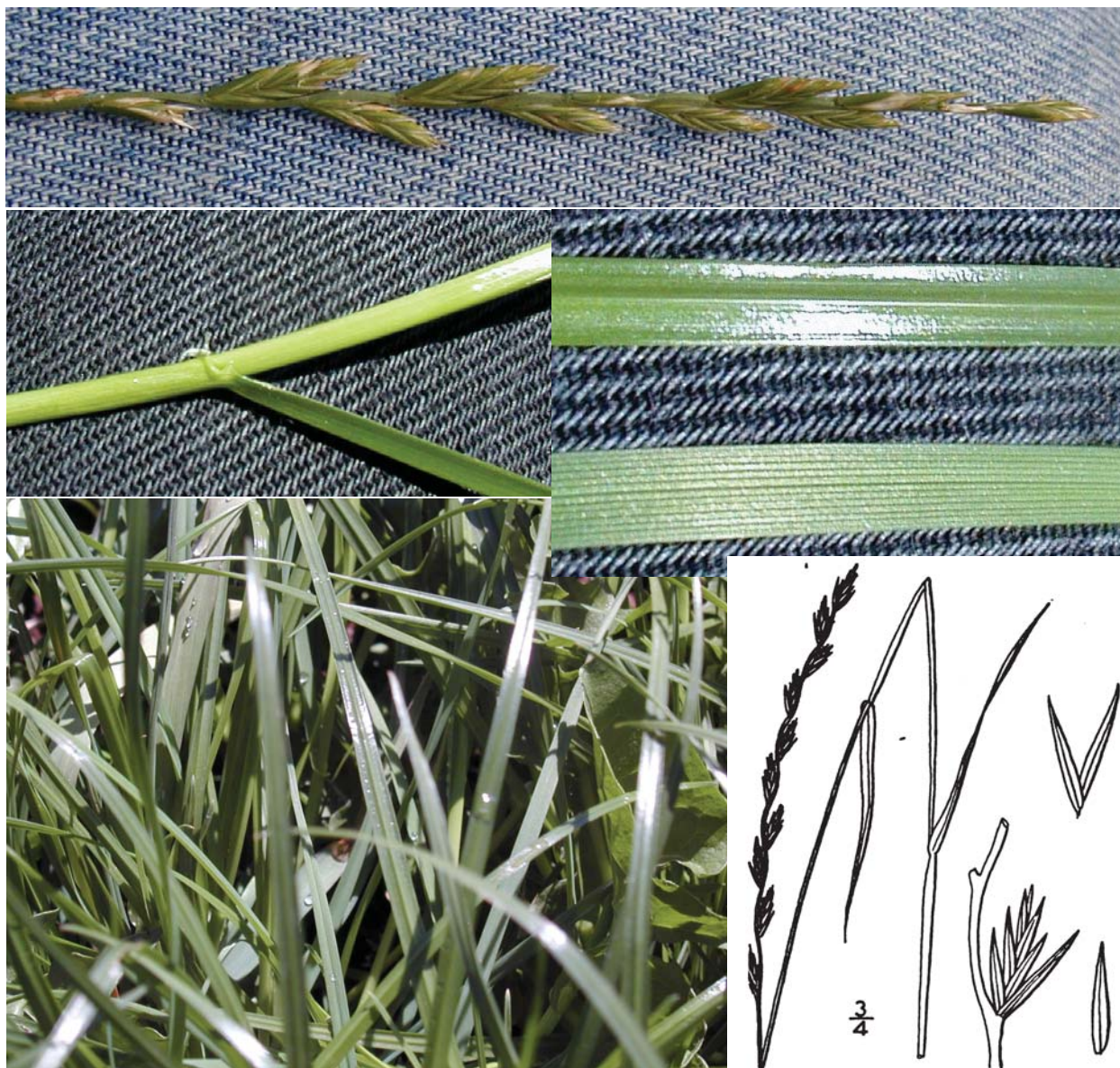
**Identifying characteristics:** Flattened stem; small clasp ing auricle; keeled leaf; very shiny; awns are often absent.

**Similar species:** Tall fescue; annual ryegrass, quackgrass

**Abundance in the Northeast:** Perennial ryegrass was found on 64% of the farms sampled and 57% of the pastures. Its average cover was 10% where present (range 0.1 - 72%).



Illustration 29: Perennial ryegrass



## Annual ryegrass

*Lolium perenne* L. ssp. *multi lorum* (Lam.) Husnot ( .OPEM2)

**Species description:** Annual, Italian or Marshall ryegrass is an introduced annual grass. It is usually described as a forage species.

**Identifying characteristics:** Robust clump forming; long claw-like auricles; membranous ligule; leaves rough above and shiny below; spikelets contain one glume and have long awns.

**Similar species:** Perennial ryegrass, quackgrass.

**Abundance in the Northeast:** Annual ryegrass was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 6.9% where present (range 4.9 - 9.7%).

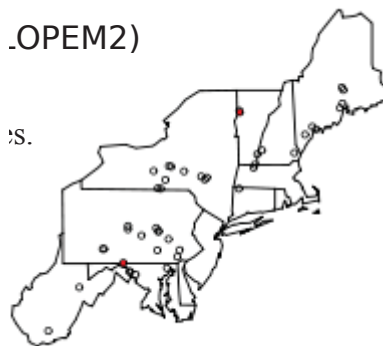


Illustration 30: Annual ryegrass



## Meadow fescue

*Lolium pratense* (Huds.) S.J. Darbyshire (LOPR7)

**Species description:** Meadow fescue is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:**

**Similar species:**

**Abundance in the Northeast:** Meadow fescue was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 2.7% where present (range 0.6 - 4.8%).



Illustration 31 : Meadow fescue



## Wirestem muhley

*Muhlenbergia mexicana* (L.) Trin. (MUME2)

**Species description:** Wirestem muhley is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Rolled leaves; auricles absent, membranous jagged ligule; stems stiff and wiry; blades short, flat and lack hairs; thick scaly rhizomes.

**Similar species:** nimblewill

**Abundance in the Northeast:** Wirestem muhley was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 2.2% where present (range 0.3 - 4.1%).



Illustration 32: Wirestem muhley



## Nimblewill

*Muhlenbergia schreberi* J.F. Gmel. (MUSC)

**Species description:** Nimblewill is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** Stolons; rolled leaves; auricles absent; very short membranous ligule; sheaths are smooth.

**Similar species:** Creeping bentgrass; wirestem muhly

**Abundance in the Northeast:** Nimblewill was found on 16% of the farms sampled and 7% of the pastures. Its average cover was 0.5% where present (range 0.5 - 0.5%).



Illustration 33: Nimblewill





## Witchgrass

*Panicum capillare* L. (PACA6)

**Species description:** Witchgrass is a native annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Leaves rolled, lack auricles; ligule is a fringe of hairs; leaves hairy on both surfaces; margins rough; sheaths hairy and purplish .

**Similar species:** Deertongue grass; Fall panicum.

**Abundance in the Northeast:** Witchgrass was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0.6% where present (range 0.5 - 0.7%).



Illustration 34: Witchgrass



## Fall panicum

*Panicum dichotomi lorum* Michx. (PADI)

**Species description:** Fall panicum is a native annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Robust; leaves rolled; lack auricles; Fringed ligule; stem appears waxy; swollen nodes give zigzag appearance; blades smooth glossy below.

**Similar species:** Witchgrass; foxtails; Johnsongrass

**Abundance in the Northeast:** Fall panicum was found on 18% of the farms sampled and 9% of the pastures. Its average cover was 1.1% where present (range 0.1 - 3%).



Illustration 35: Fall panicum



## Reed canarygrass

*Phalaris arundinacea* L. (PHAR3)

**Species description:** Reed canarygrass is a native perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Auricles absent; long rounded ligule; blades flat and smooth; sheath round and smooth; robust.

**Similar species:** other reeds

**Abundance in the Northeast:** Reed canarygrass was found on 45% of the farms sampled and 25% of the pastures. Its average cover was 9.7% where present (range 0.1 - 61%).



Illustration 36: Reed canarygrass



## Timothy

*Phleum pratense* L. (PHPR3)

**Species description:** Timothy is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:** Swollen stem base (corm); lack auricles; membranous ligule; spiralling leaf arrangement.

**Similar species:** Smooth brome.

**Abundance in the Northeast:** Timothy was found on 98% of the farms sampled and 83% of the pastures. Its average cover was 6.2% where present (range 0.1 - 42%).



Illustration 37: Timothy



## Annual bluegrass

*Poa annua* L. (POAN)

**Species description:** Annual bluegrass is an introduced annual or biennial grass. It is not usually described as a forage species.

**Identifying characteristics:** lack auricles; pointy membrabous ligule; leaves are keeled with boat-shaped tip; hairless sheath; tufted, light green, spreads by tillers, not rhizomatous.

**Similar species:** canada bluegrass; kentucky bluegrass

**Abundance in the Northeast:** Annual bluegrass was found on 18% of the farms sampled and 7% of the pastures. Its average cover was 1.8% where present (range 0.3 - 7.4%).



Illustration 38: Annual bluegrass



## Canada bluegrass

*Poa compressa* L. (POCO)

**Species description:** Canada bluegrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** rhizomatous; dark green; panicle with short branches in pairs; also boat-shaped tip.

**Similar species:** annual bluegrass, kentucky bluegrass

**Abundance in the Northeast:** Canada bluegrass was found on 2% of the farms sampled and 3% of the pastures. Its average cover was 1.4% where present (range 0.8 - 1.7%).



Illustration 39: Canada bluegrass



## Kentucky bluegrass

*Poa pratensis* L. (POPR)

**Species description:** Kentucky bluegrass is an introduced perennial grass. It is usually described as a forage species.

**Identifying characteristics:** lack auricles; membranous ligule; folded leaf; “ski-track” veins; boat-shaped leaf tip; rhizomatous, blue green color; panicle with longer branches.

**Similar species:** Orchardgrass; perennial ryegrass.

**Abundance in the Northeast:** Kentucky bluegrass was found on 100% of the farms sampled and 96% of the pastures. Its average cover was 20.9% where present (range 0.1 - 73.5%).



Illustration 40: Bluegrass;  
Kentucky bluegrass



## Rough bluegrass

*Poa trivialis* L. (POTR2)

**Species description:** Rough bluegrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** lack auricles; long membranous ligule; leaf margins rough; boat-shaped tip; sheaths are rough; open pyramidal panicle; rhizomatous.

**Similar species:** other bluegrass; creeping bentgrass

**Abundance in the Northeast:** Rough bluegrass was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 2.7% where present (range 0.1 - 6.1%).



Illustration 41: Rough bluegrass





## Bulrush; woolgrass

*Scirpus cyperinus* (L.) Kunth (SCCY)

**Species description:** Bulrush; woolgrass is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** very wooly; wet ground; 4ft tall; stem slightly triangular.

**Similar species:** other rushes

**Abundance in the Northeast:** Bulrush; woolgrass was found on 7% of the farms sampled and 6% of the pastures. Its average cover was 0.7% where present (range 0.1 -1.9%).

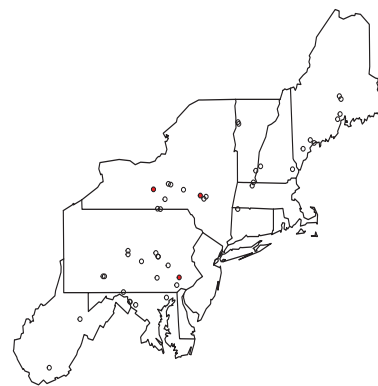


Illustration 42: Bulrush



## Cereal rye

*Secale cereale* L. (SECE)

**Species description:** Cereal rye is an introduced annual or biennial grass. It is not usually described as a forage species.

**Identifying characteristics:** rolled; flat leaves less erect than other grains; small to medium auricles; sheaths usually hairy.

**Similar species:** wild oat; barley; wheat

**Abundance in the Northeast:** Cereal rye was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).

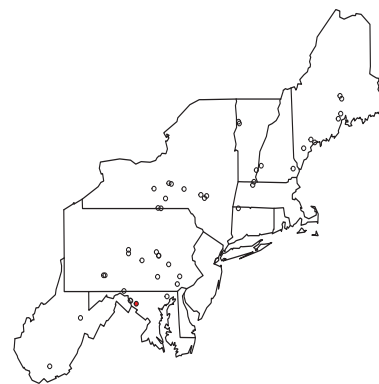


Illustration 43: Cereal rye



## Giant foxtail

*Setaria faberi* Herrm. (SEFA)

**Species description:** Giant foxtail is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Sheath has split; hairy margins; ligule of hairs; leaf blade with short hairs; nodding flowerhead.

**Similar species:** Other foxtails.

**Abundance in the Northeast:** Giant foxtail was found on 16% of the farms sampled and 13% of the pastures. Its average cover was 0.9% where present (range 0.1 - 2.4%).



Illustration 44: Giant foxtail



## Yellow foxtail

*Setaria pumila* (Poir.) Roem. & Schult. ssp. *pumila* (SEPUP2)

**Species description:** Yellow foxtail is an introduced annual or perennial grass. It is not usually described as a forage species.

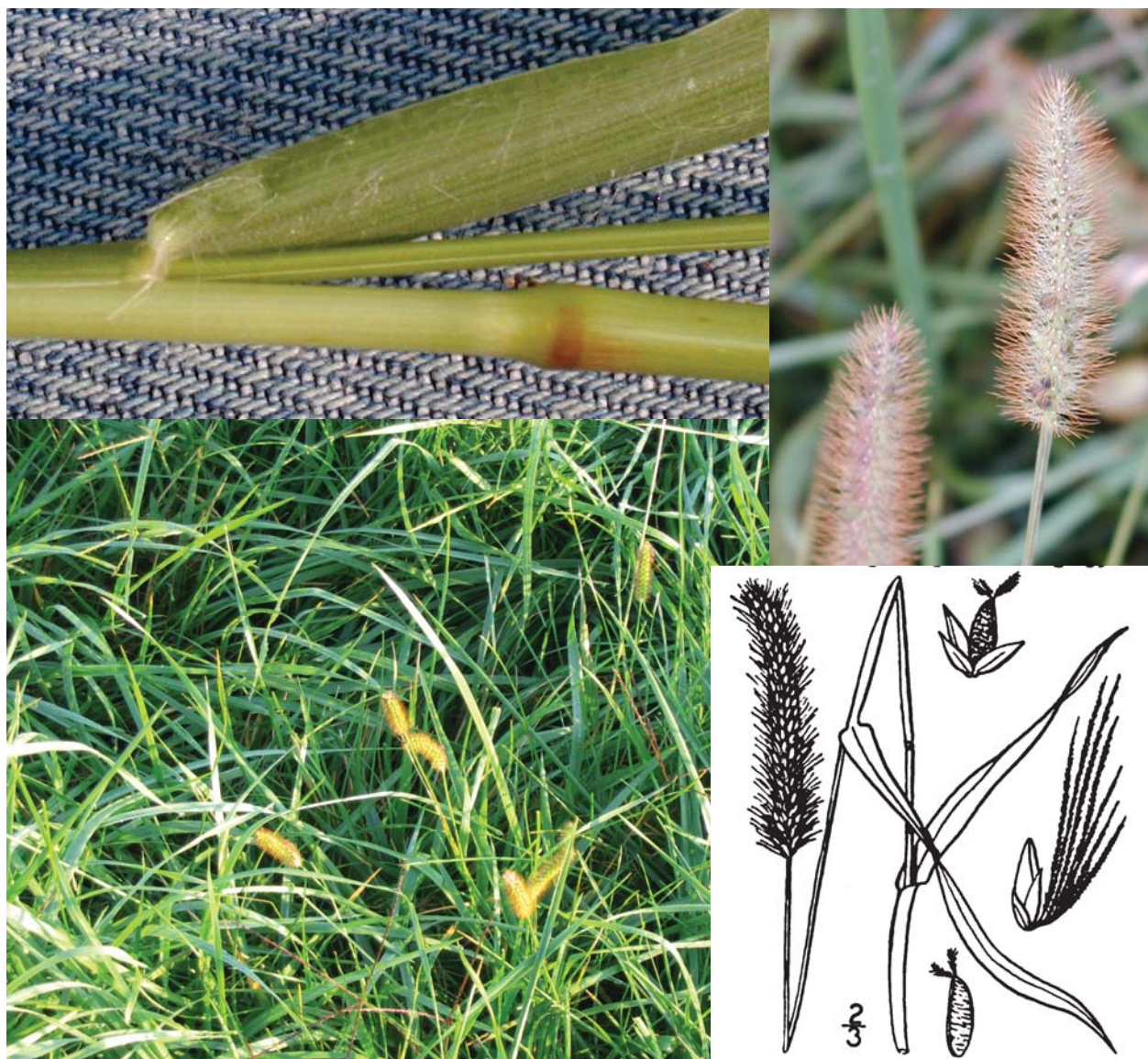
**Identifying characteristics:** lack auricles; ligule fringe of hair; sheath not hairy; leaf with long hairs near base; seedhead bristles yellow.

**Similar species:** Other foxtails.

**Abundance in the Northeast:** Yellow foxtail was found on 32% of the farms sampled and 31% of the pastures. Its average cover was 2.6% where present (range 0.1 - 29.3%).



Illustration 45: Yellow foxtail



## Green foxtail

*Setaria viridis* (L.) Beauv. (SEVI4)

**Species description:** Green foxtail is an introduced annual grass. It is not usually described as a forage species.

**Identifying characteristics:** Sheath hairy; leaf blade rough on top but not hairy; seedhead bristles green or purplish.

**Similar species:** Other foxtails.

**Abundance in the Northeast:** Green foxtail was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 2% where present (range 0.1 - 5.6%).



Illustration 46: Green foxtail



## Johnsongrass

*Sorghum halepense* (L.) Pers. (SOHA)

**Species description:** Johnsongrass is an introduced perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** lack auricles; membranous ligule; blades are flat and smooth with prominent white midvein.

**Similar species:** Shattercane; fall panicum

**Abundance in the Northeast:** Johnsongrass was found on 16% of the farms sampled and 10% of the pastures. Its average cover was 3.2% where present (range 0.1 - 14.6%).



Illustration 47: Johnsongrass



## Purpletop

*Tridens flavus* (L.) A.S. Hitchc. (TRFL2)

**Species description:** Purpletop is a native perennial grass. It is not usually described as a forage species.

**Identifying characteristics:** clumpy; 1-2 m tall; smooth blades 3 to 10 mm wide; open panicle purplish to almost black.

**Similar species:** redbtop; rough bluegrass

**Abundance in the Northeast:** Purpletop was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 1.1% where present (range 0.2 - 2%).



Illustration 48 : Purpletop



## Legumes

### Birdfoot trefoil

*Lotus corniculatus* L. (LOC06)

**Species description:** Birdfoot trefoil is an introduced perennial forb. It is usually described as a forage species.

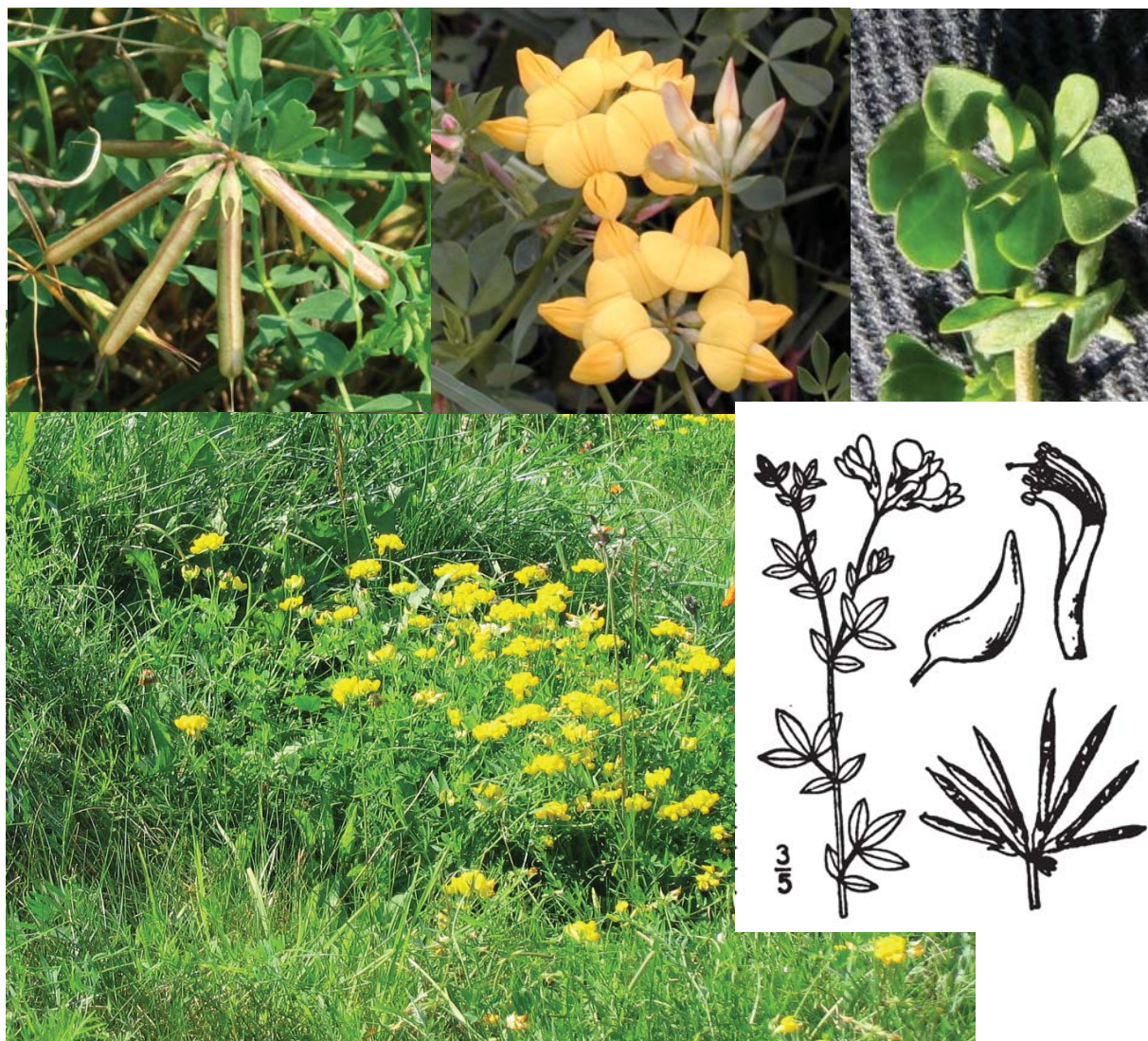
**Identifying characteristics:** Yellow flowers; three leaflets; blue-green leaves with no teeth. Cluster of fruit looks like a bird's foot.

**Similar species:** Alfalfa.

**Abundance in the Northeast:** Birdfoot trefoil was found on 36% of the farms sampled and 33% of the pastures. Its average cover was 4.5% where present (range 0.1 - 27%).



Illustration 49: Birdfoot trefoil





## Black medick

*Medicago lupulina* L. (MELU)

**Species description:** Black medick is an introduced annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Trailing plant; leaflet margins toothed; center leaflet has longer stalk than other two; small yellow flowers; clusters of black seeds;

**Similar species:** clovers; birdsfoot refoil; oxalis

**Abundance in the Northeast:** Black medick was found on 45% of the farms sampled and 27% of the pastures. Its average cover was 1.4% where present (range 0.1 - 11.6%).



## Alfalfa

*Medicago sativa* L. (MESA)

**Species description:** Alfalfa is an introduced annual or perennial forb. It is usually described as a forage species.

**Identifying characteristics:** 3-5 toothed leaflets; stipule; purple flowers.

**Similar species:** Birdsfoot trefoil; black medick

**Abundance in the Northeast:** Alfalfa was found on 52% of the farms sampled and 41% of the pastures. Its average cover was 8.7% where present (range 0.1 - 82%).



Illustration 51: Alfalfa



## Sweet clover

*Melilotus officinalis* (L.) Lam. (MEOF)

**Species description:** Sweet clover is an introduced annual, biennial or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** flowers 2-4" long; leaflets finely toothed; fragrant flowers and leaves.

**Similar species:** all sweet clovers

**Abundance in the Northeast:** Sweet clover was found on 7% of the farms sampled and 4% of the pastures. Its average cover was 10.1% where present (range 0.1 - 20%).



Illustration 52: Sweet clover



## Rabbitfoot clover

*Trifolium arvense* L. (TRAR4)

**Species description:** Rabbitfoot clover is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** stems are soft, reddish and hairy; long narrow leaflets hairy on top and bottom; white to pale pink

**Similar species:** other clovers and prostrate spurge

**Abundance in the Northeast:** Rabbitfoot clover was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 53: Rabbitfoot clover



## Hop clover

*Trifolium aureum* Pollich (TRAU2)

**Species description:** Hop clover is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** trifoliate with stalked central leaflet; longer narrow leaves; yellow flowers numerous in rounded heads; flowers dry, turn brown and remain on plant.

**Similar species:** sweet clover; black medic; rabbitfoot clover

**Abundance in the Northeast:** Hop clover was found on 16% of the farms sampled and 10% of the pastures. Its average cover was 0.8% where present (range 0.1 - 3.5%).



Illustration 54: Hop clover



## Alsike clover

*Trifolium hybridum* L. (TRHY)

**Species description:** Alsike clover is an introduced annual or perennial forb. It is usually described as a forage species.

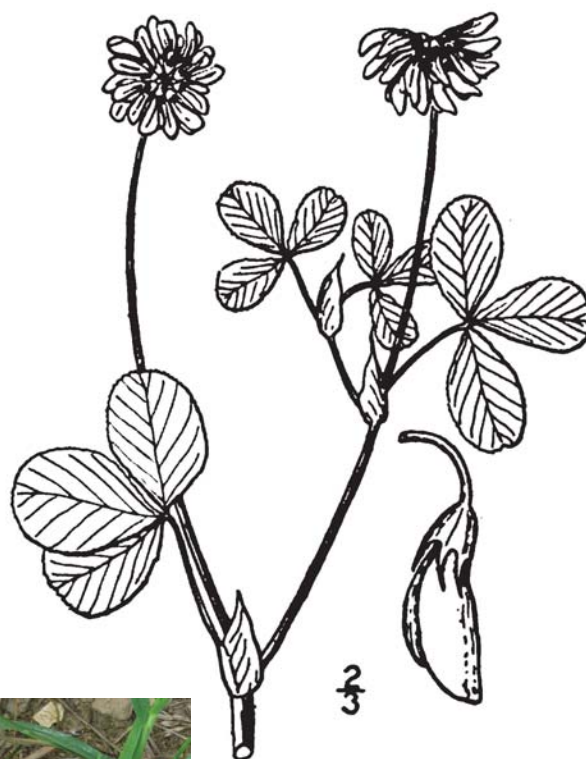
**Identifying characteristics:** clumping upright form; hairless leaves, longer than white clover; no stalked central leaflet; pinkish to white flowers.

**Similar species:** White clover; red clover.

**Abundance in the Northeast:** Alsike clover was found on 32% of the farms sampled and 24% of the pastures. Its average cover was 1.8% where present (range 0.1 - 8.5%).



Illustration 55: Alsike clover



## Red clover

*Trifolium pratense* L. (TRPR2)

**Species description:** Red clover is an introduced biennial or perennial forb. It is usually described as a forage species.

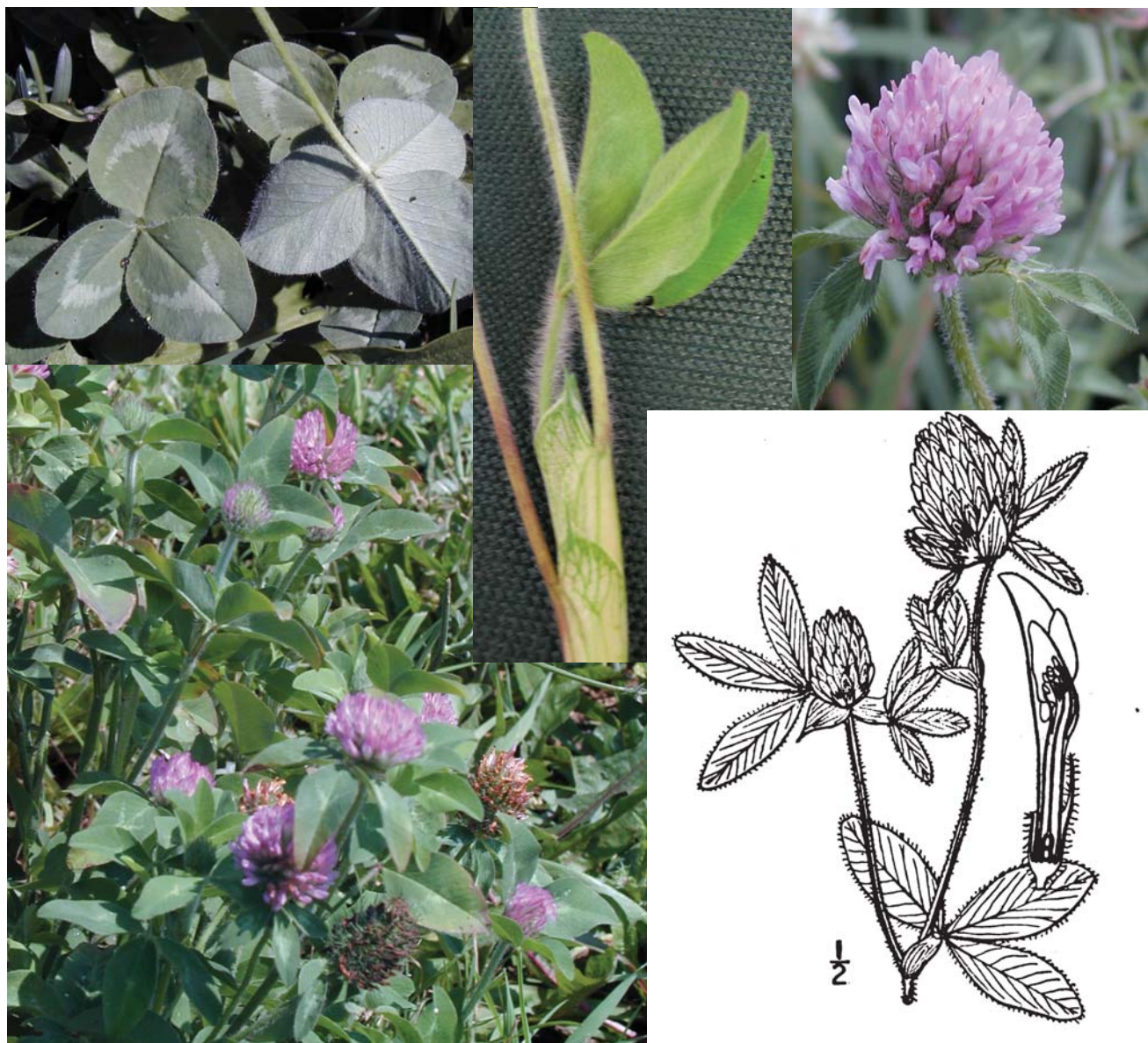
**Identifying characteristics:** clumping upright form; hairy rounded leaves and stems; stipule; usually blotched with white "V" in leaf; red to purple flowers on stalkless heads.

**Similar species:** White and Alsike clover have hairless leaves.

**Abundance in the Northeast:** Red clover was found on 98% of the farms sampled and 95% of the pastures. Its average cover was 3.8% where present (range 0.1 - 45.5%).



Illustration 56: Red clover



## White clover

*Trifolium repens* L. (TRRE3)

**Species description:** White clover is an introduced perennial forb. It is usually described as a forage species.

**Identifying characteristics:** low spreading form; hairless rounded leaves; no stipule; rooting at nodes; white flowers.

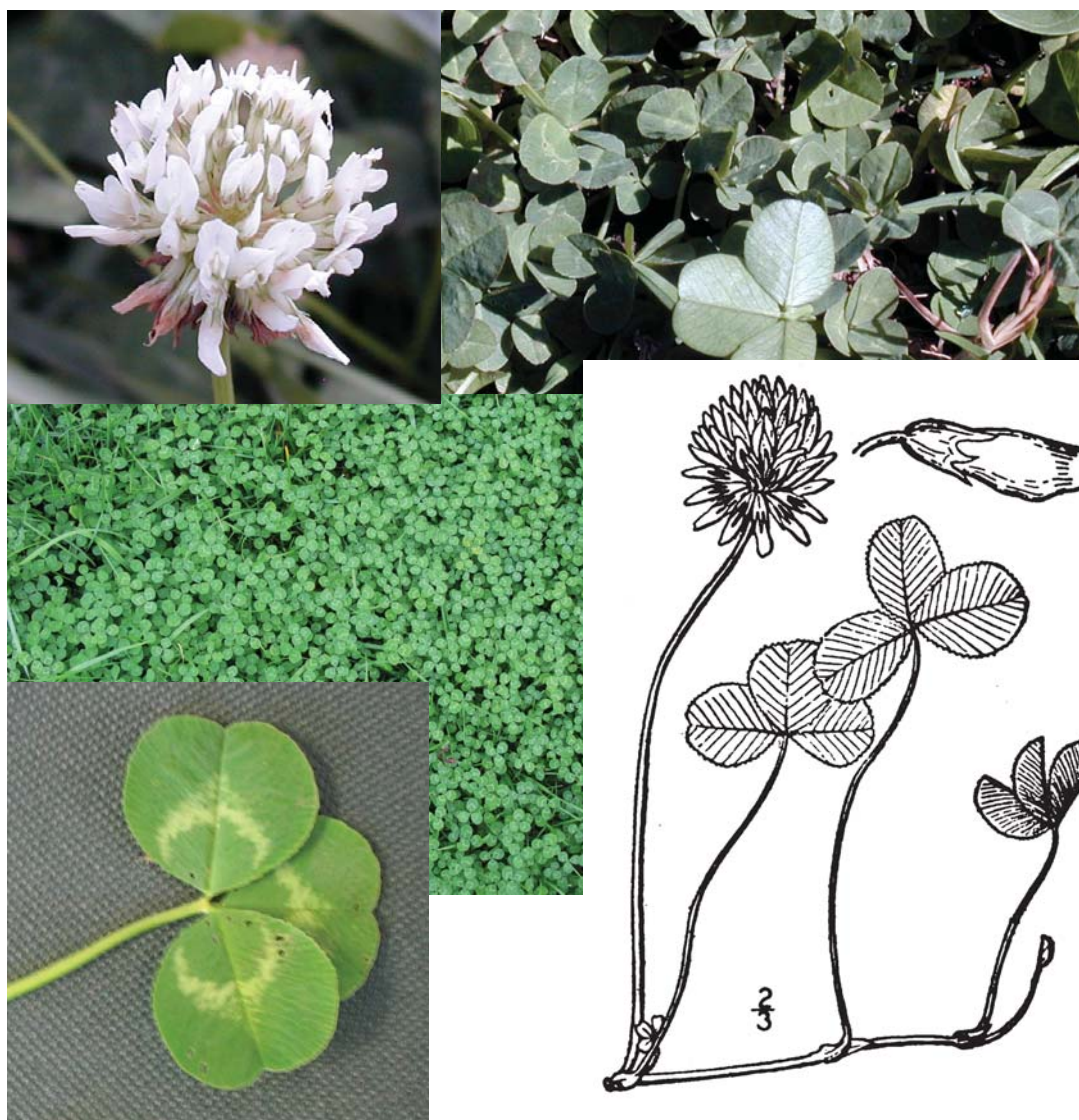
**Similar species:** Red clover has hairy leaves; Alsike clover;

Kura clover (*Trifolium ambiguum* M. Bieb.) is sometimes planted. It is very similar, with hairless leaves and white flowers, but has football-shaped leaflets.

**Abundance in the Northeast:** White clover was found on 100% of the farms sampled and 98% of the pastures. Its average cover was 15.3% where present (range 0.1 – 72.5%).



Illustration 57: White clover





## Vetch

*Vicia sp.* (VICIA)

**Species description:** Vetch is an introduced annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Vine-like; pinnately-compound leaves; older leaves develop tendrils; purple flowers.

**Similar species:** all vetch species

**Abundance in the Northeast:** Vetch was found on 34% of the farms sampled and 27% of the pastures. Its average cover was 1.1% where present (range 0.1 - 11.2%).



Illustration 58: Vetch



**Tumble pigweed**

*Amaranthus albus* L. (AMAL)

**Species description:** Tumble pigweed is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Egg-shaped alternate leaves; bushy whitish stems; green flowers.

**Similar species:** Pigweeds

**Abundance in the Northeast:** Tumble pigweed was found on 9% of the farms sampled and 9% of the pastures. Its average cover was 3.5% where present (range 0.1 - 14.5%).



Illustration 59 : Tumble pigweed



## Mat amaranth or prostrate pigweed

*Amaranthus blitoides* S. Wats. (AMBL)

**Species description:** Prostrate pigweed is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** leaves light green bunched at branch tips; Apex of leaf notched; stems pliable, reddish color.

**Similar species:** Pigweeds; Prostrate spurge; Purslane

**Abundance in the Northeast:** Mat amaranth was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 0.4% where present (range 0.2 - 0.5%).



Illustration 60: Mat amaranth



## Redroot pigweed

*Amaranthus retroflexus* L. (AMRE)

**Species description:** Redroot pigweed is an introduced annual forb. It is not usually described as a forage species.

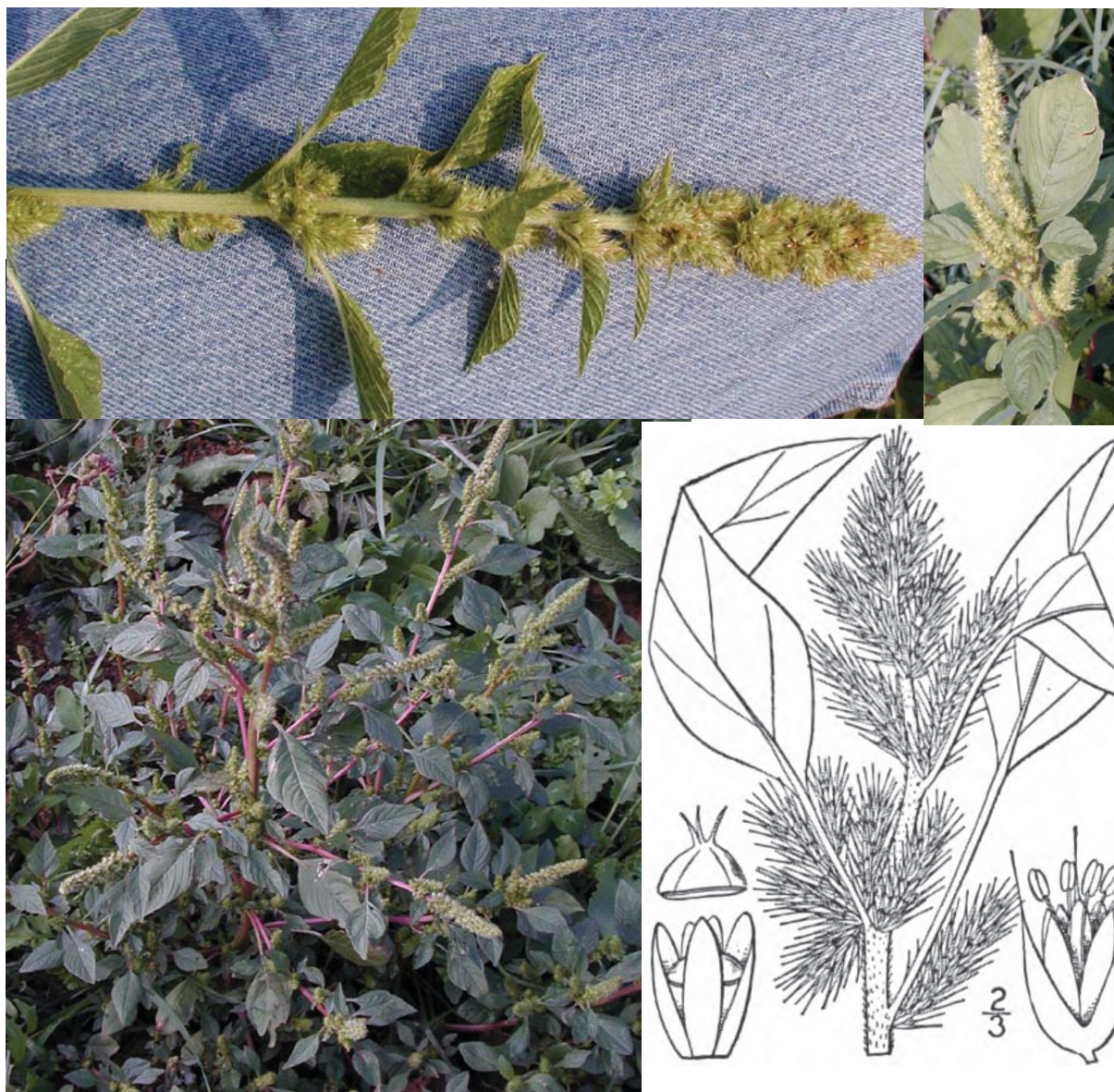
**Identifying characteristics:** Leaves simple, alternate, ovate, smooth dull green above, hairy below; Spiky green flowers; stems hairy, reddish at base.

**Similar species:** other pigweeds; lambsquarter

**Abundance in the Northeast:** Redroot pigweed was found on 48% of the farms sampled and 43% of the pastures. Its average cover was 2.1% where present (range 0.1 - 21%).



Illustration 61: Redroot pigweed



## Dogbane

*Apocynum* sp. (APOCY)

**Species description:** Dogbane is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Narrow opposite leaves; stems much-branched in upper third to half of plant; flowers are small, greenish white; milky sap.

**Similar species:** common milkweed

**Abundance in the Northeast:** Dogbane was found on 16% of the farms sampled and 9% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.6%).



Illustration 62: Dogbane



## Common milkweed

*Asclepias syriaca* L. (ASSY)

**Species description:** Common milkweed is a native perennial forb. It is not usually described as a forage species.

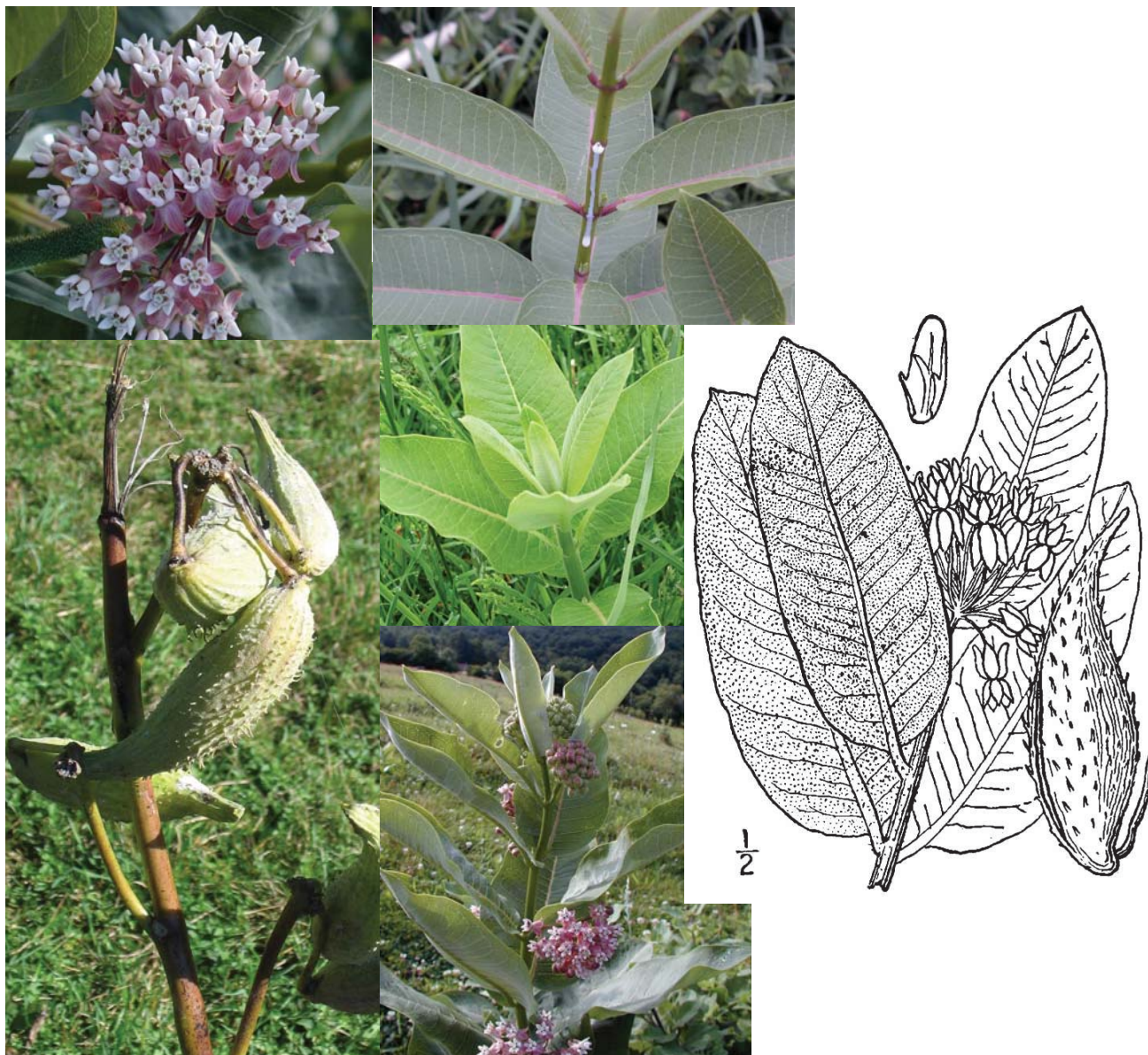
**Identifying characteristics:** Leaves oblong, opposite, long, prominent white midvein above, downy below; stems unbranched, downy hairy, erect; Milky sap.

**Similar species:** Dogbane

**Abundance in the Northeast:** Common milkweed was found on 64% of the farms sampled and 39% of the pastures. Its average cover was 0.7% where present (range 0.1 - 2.9%).



Illustration 63: Common milkweed



## Wild carrot

*Daucus carota* L. (DACA6)

**Species description:** Wild carrot is an introduced biennial forb. It is not usually described as a forage species.

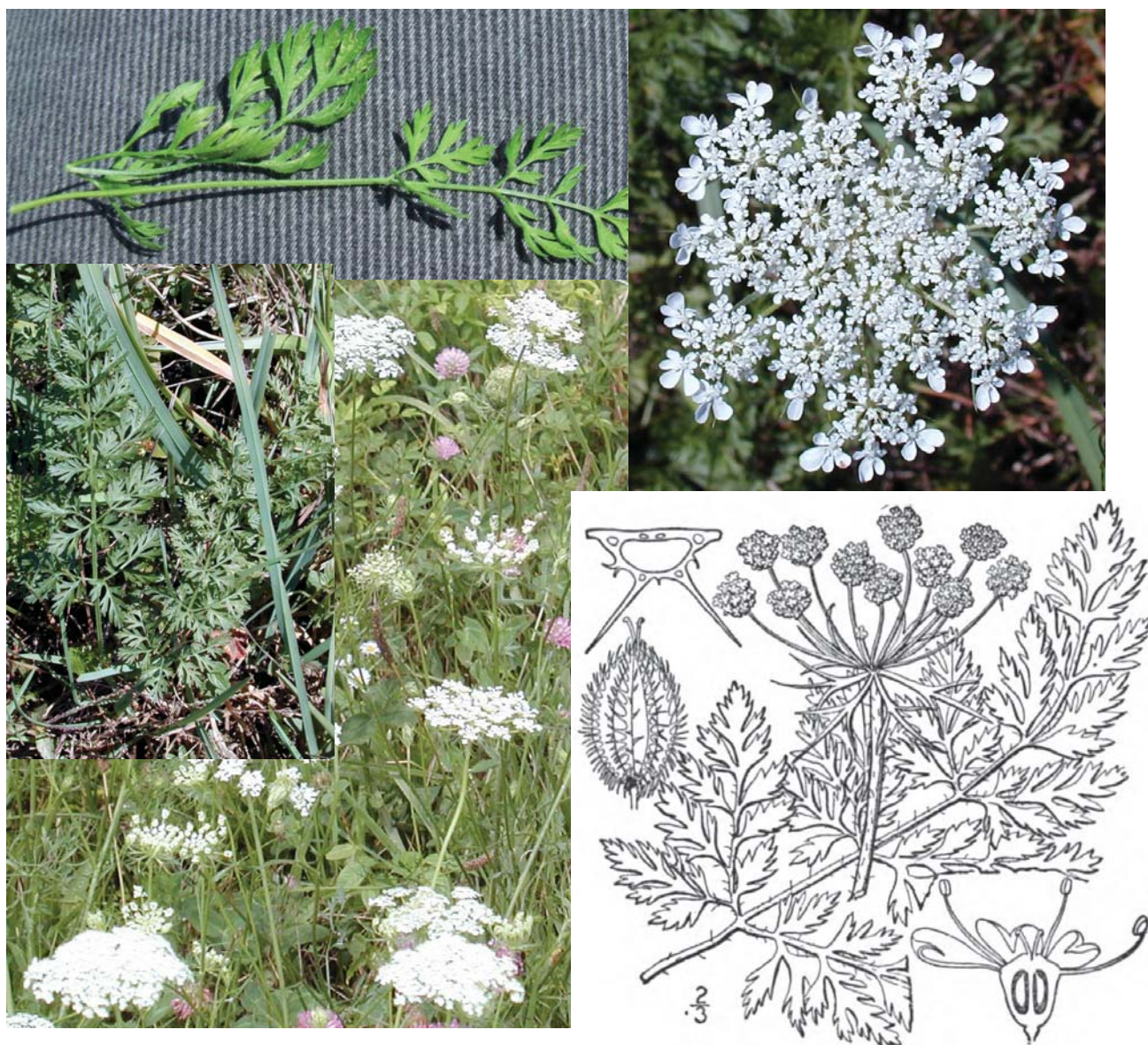
**Identifying characteristics:** Very divided leaves; smells of carrot.

**Similar species:** Yarrow.

**Abundance in the Northeast:** Wild carrot was found on 82% of the farms sampled and 57% of the pastures. Its average cover was 2.1% where present (range 0.1 - 13.5%).



Illustration 64: Wild carrot



## Yarrow

*Achillea millefolium* L. (ACMI2)

**Species description:** Yarrow is an introduced perennial forb. It is not usually described as a forage species.

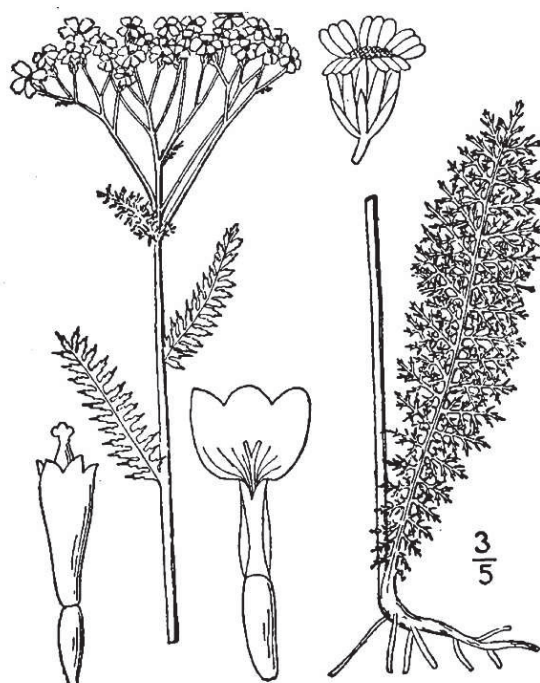
**Identifying characteristics:** Feathery leaves; aromatic, does **not** smell like carrot; white flowers in a flat head.

**Similar species:** Wild carrot.

**Abundance in the Northeast:** Yarrow was found on 36% of the farms sampled and 27% of the pastures. Its average cover was 1.4% where present (range 0.1 - 7.5%).



Illustration 65: Yarrow





## Ragweed

*Ambrosia artemisiifolia* L. (AMAR2)

**Species description:** Ragweed is a native annual forb. It is not usually described as a forage species.

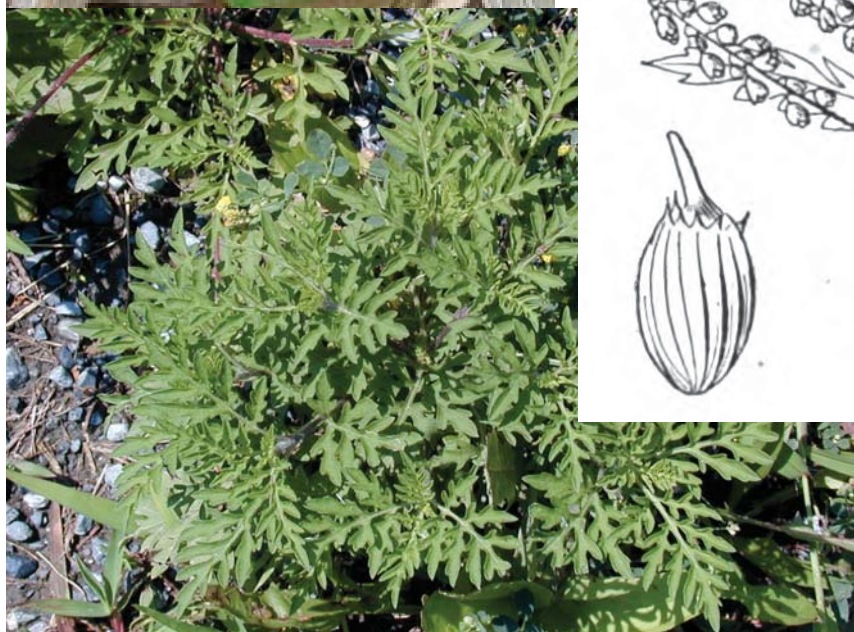
**Identifying characteristics:** Stems erect, long rough hairs; Deeply divided leaves, alternate, sometimes opposite in lower leaves; green flowers.

**Similar species:** Giant ragweed

**Abundance in the Northeast:** Ragweed was found on 68% of the farms sampled and 50% of the pastures. Its average cover was 1.2% where present (range 0.1 - 12.6%).



Illustration 66: Ragweed



## Giant ragweed

*Ambrosia trifida* L. (AMTR)

**Species description:** Giant ragweed is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Stems and leaves rough and hairy; opposite three-lobed leaves; winged petioles.

**Similar species:** common ragweed

**Abundance in the Northeast:** Giant ragweed was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 67: Giant ragweed



## Corn chamomile

*Anthemis arvensis* L. (ANAR6)

**Species description:** Corn chamomile is an introduced annual forb. It is not usually described as a forage species.

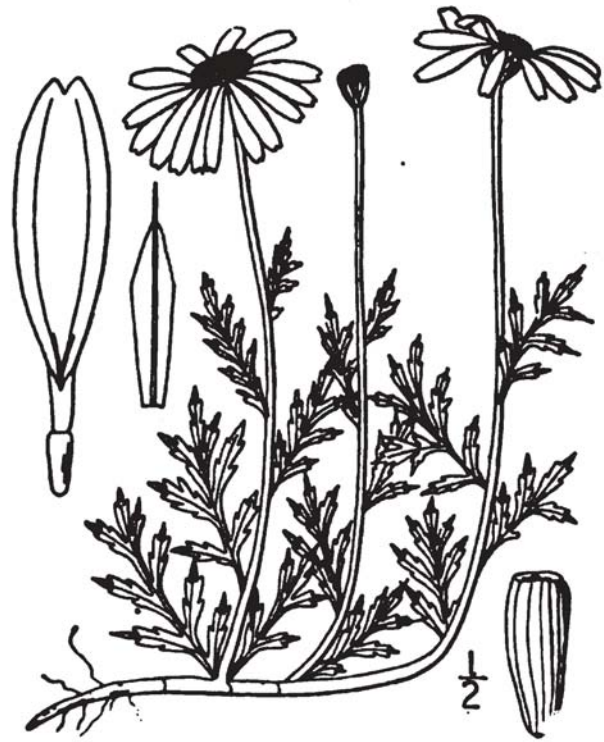
**Identifying characteristics:** Stems highly branched; alternate leaves, yellowish green, pubescent, finely pinnately divided; lack offensive odor of mayweed.

**Similar species:** mayweed chamomile; pineapple-weed

**Abundance in the Northeast:** Corn chamomile was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 1.2% where present (range 1.2 - 1.2%).



Illustration 68: Corn chamomile



## Stinking chamomile; mayweed

*Anthemis cotula* L. (ANCO2)

**Species description:** Stinking chamomile; mayweed is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Stems highly branched; alternate leaves, yellowish green, pubescent, finely pinnately divided; strong unpleasant odor when crushed.

**Similar species:** corn chamomile; pineapple-weed

**Abundance in the Northeast:** Stinking chamomile; mayweed was found on 18% of the farms sampled and 9% of the pastures. Its average cover was 0.4% where present (range 0.2 - 0.5%).



Illustration 69: Stinking chamomile; mayweed



## Burdock

*Arctium minus* Bernh. (ARMI2)

**Species description:** Burdock is an introduced biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Large eggshaped, alternate, leaves with wooly whitish undersides; "sticky" purple fruit.

**Similar species:** broadleaf and curly dock lack the downy leaf.

**Abundance in the Northeast:** Burdock was found on 52% of the farms sampled and 41% of the pastures. Its average cover was 0.9% where present (range 0.1 - 4%).



Illustration 70: Burdock



## Beggartick

*Bidens* spp. (BIDEN)

**Species description:** Beggartick is a native annual forb. It is not usually described as a forage species.

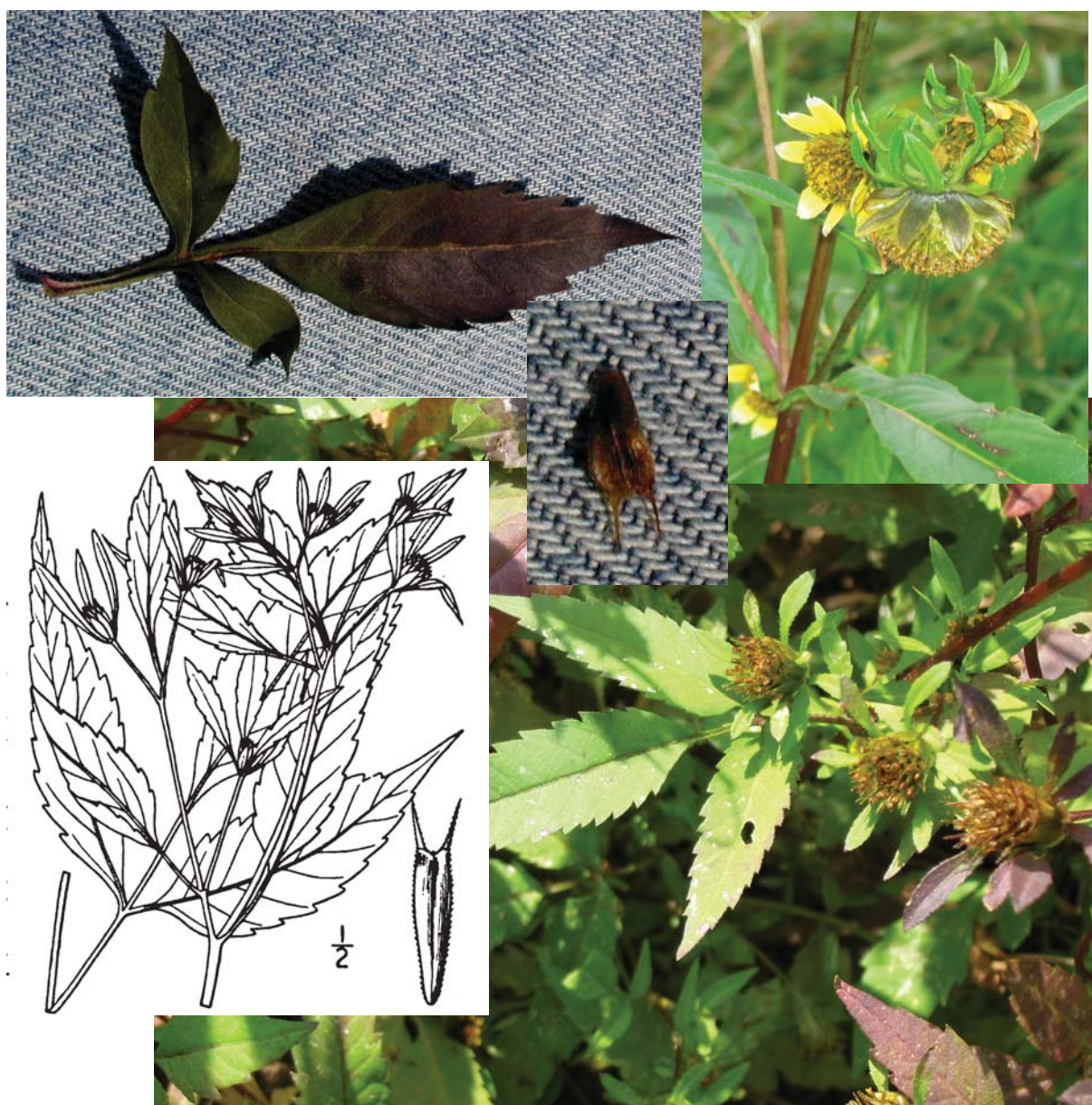
**Identifying characteristics:** Leaves are opposite and compound, 3-5 leaflets, toothed margins, short hairs; barbed "sticky" seeds.

**Similar species:** All *Bidens* species

**Abundance in the Northeast:** Beggartick was found on 11% of the farms sampled and 4% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 71: Beggartick



## Plumeless thistle

*Carduus acanthoides* L. (CAAC)

**Species description:** Plumeless thistle is an introduced biennial forb. It is not usually described as a forage species.

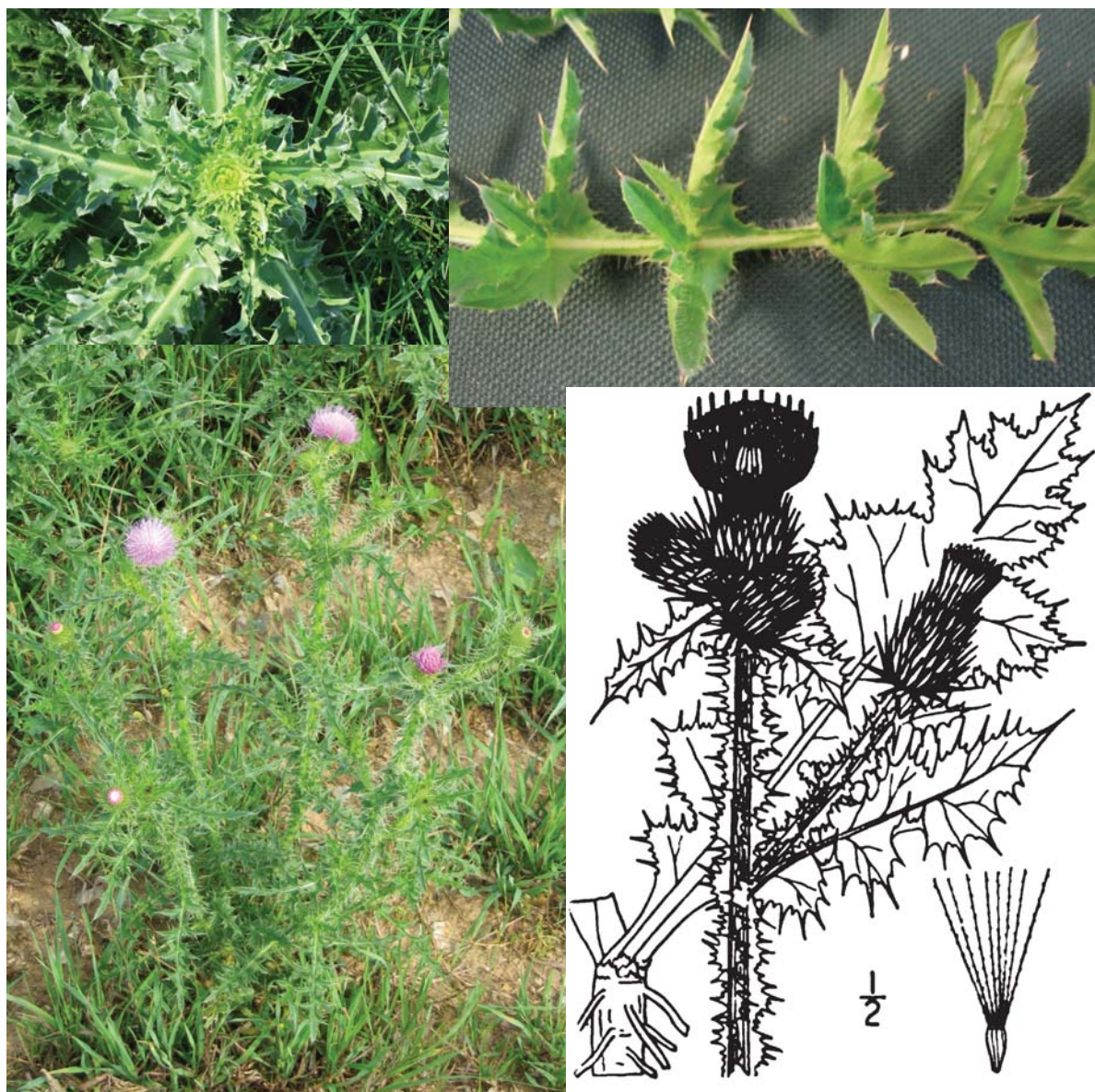
**Identifying characteristics:** Hair on underside of leaves; usually yellow spines; hairy stem winged up to base of purple flowers.

**Similar species:** Musk thistle.

**Abundance in the Northeast:** Plumeless thistle was found on 7% of the farms sampled and 4% of the pastures. Its average cover was 0.4% where present (range 0.1 - 0.9%).



Illustration 72: Plumeless thistle



## Musk thistle

*Carduus nutans* L. (CANU4)

**Species description:** Musk thistle is an introduced biennial or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves hairless on top and bottom; usually white spines; hairless stem naked at top, winged below; purple flowers often nodding.

**Similar species:** Plumeless thistle; bull thistle.

**Abundance in the Northeast:** Musk thistle was found on 25% of the farms sampled and 13% of the pastures. Its average cover was 1.7% where present (range 0.1 - 12.2%).



Illustration 73: Musk thistle





## Canada thistle

*Cirsium arvense* (L.) Scop. (CIAR4)

**Species description:** Canada thistle is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves waxy on top, may be hairy beneath; stems have no spines or wings; many small purple flowerheads.

**Similar species:** Brownray knapweed; bull thistle

**Abundance in the Northeast:** Canada thistle was found on 50% of the farms sampled and 33% of the pastures. Its average cover was 1.8% where present (range 0.1 - 11%).



Illustration 74: Canada thistle



## Bull thistle

*Cirsium vulgare* (Savi) Ten. (CIVU)

**Species description:** Bull thistle is an introduced biennial forb. It is not usually described as a forage species.

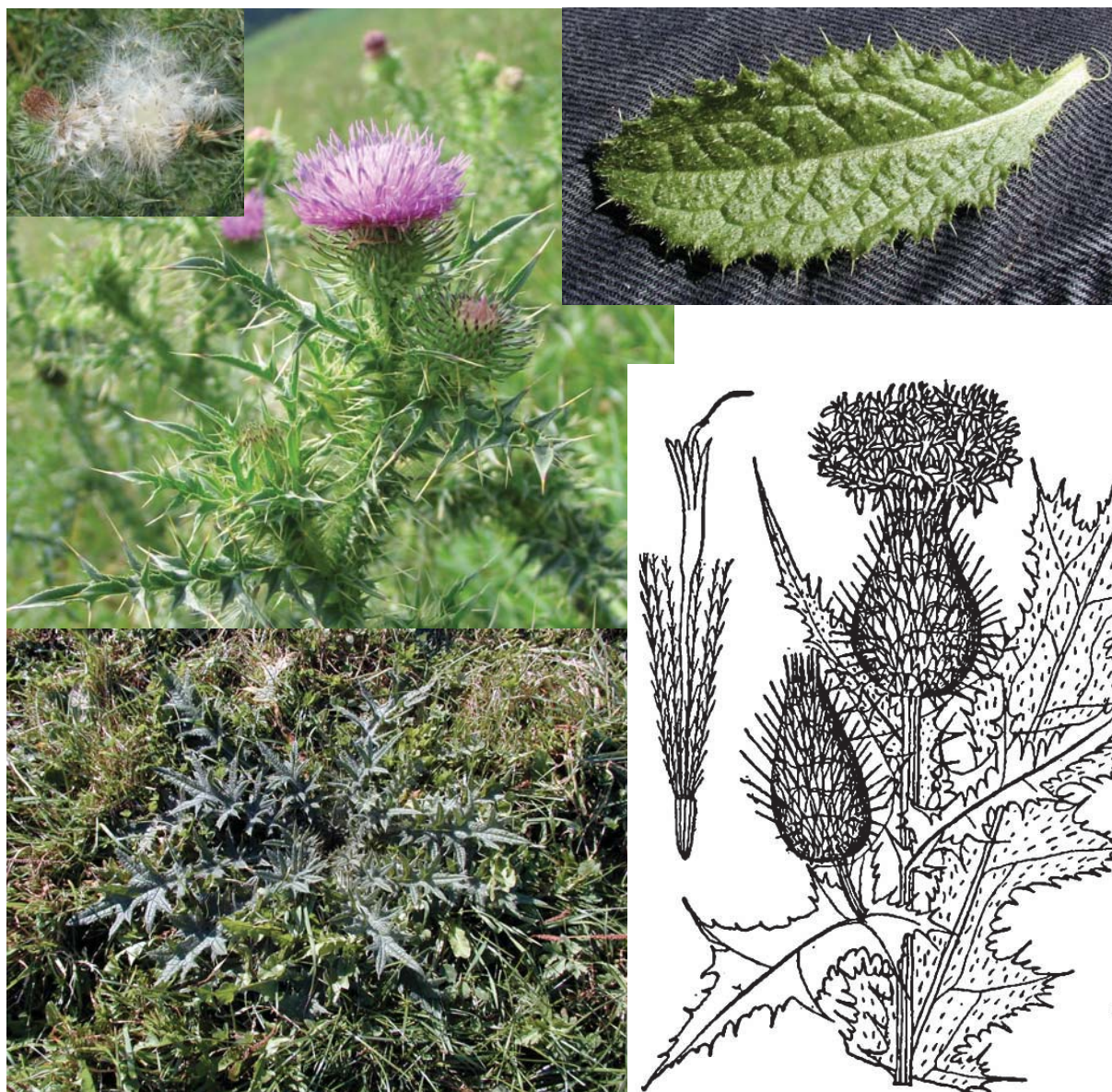
**Identifying characteristics:** Leaves with stiff hairs on top and bottom, deeply lobed; stems stout and spiny; large purple flowers.

**Similar species:** Musk thistle; plumeless thistle.

**Abundance in the Northeast:** Bull thistle was found on 73% of the farms sampled and 56% of the pastures. Its average cover was 0.7% where present (range 0.1 - 5.1%).



Illustration 75: Bull thistle



## American burnweed; pilewort

*Erechtites hieraciifolia* (L.) Raf. ex DC. (ERHI2)

**Species description:** American burnweed; pilewort is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves are oblong, shallow or deeply toothed; smooth or hairy grooved stem; flowers greenish white with brush like tip.

**Similar species:** Fleabanes, boneset, groundsel

**Abundance in the Northeast:** American burnweed; pilewort was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).

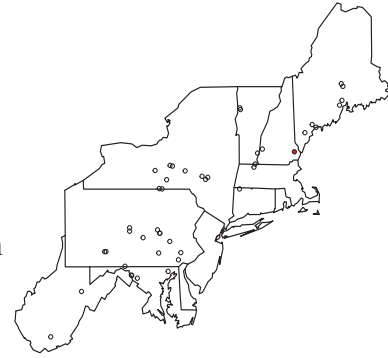
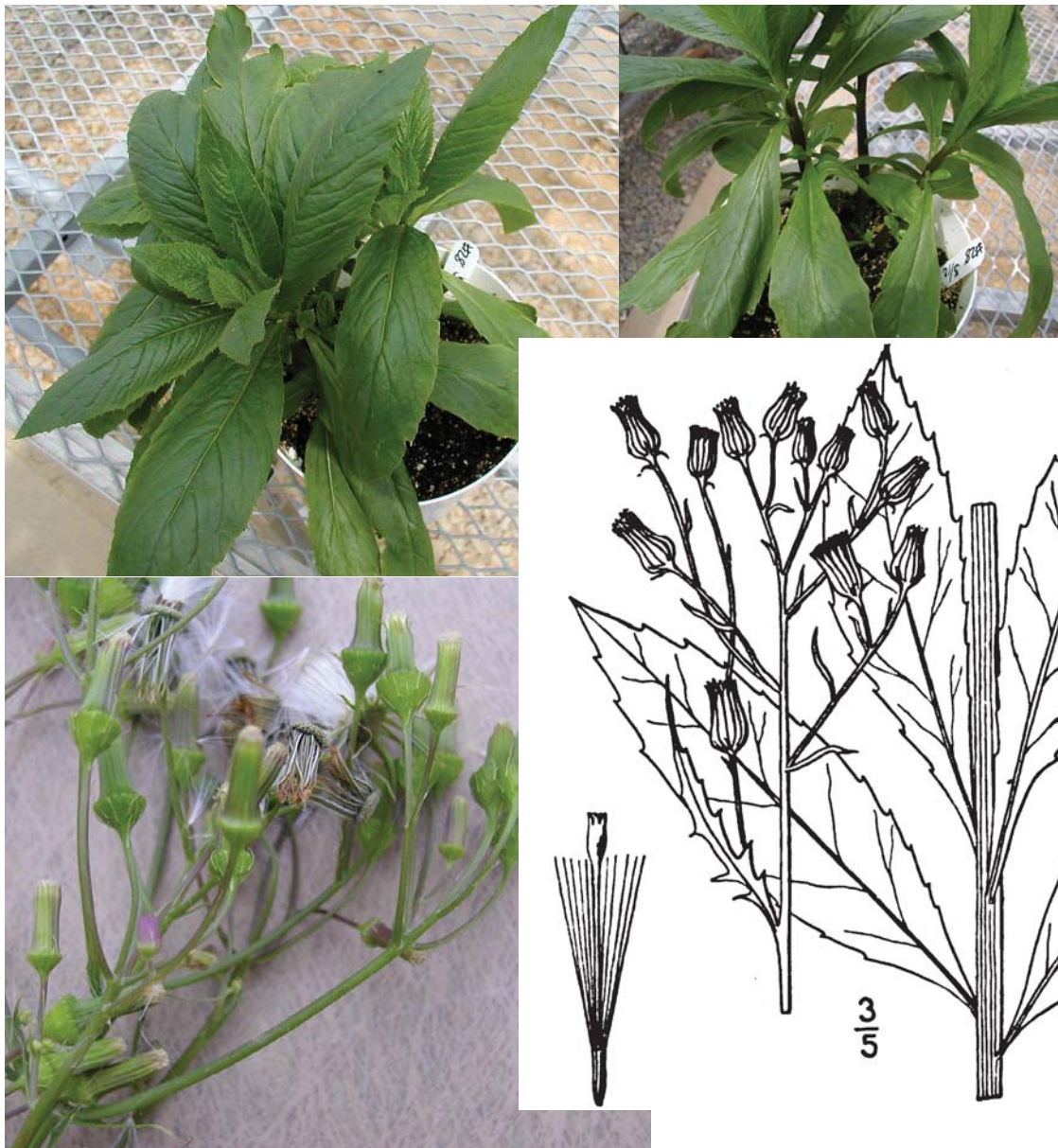


Illustration 76: Pilewort



## Daisy fleabane

*Erigeron annuus* (L.) Pers. (ERAN)

**Species description:** Daisy fleabane is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Fuzzy toothed leaves, not clasping at stem; hairy stem; white to pink flowers, 50-100 rays.

**Similar species:** Common fleabane; goldenrods; horseweed.

**Abundance in the Northeast:** Daisy fleabane was found on 70% of the farms sampled and 59% of the pastures. Its average cover was 1.2% where present (range 0.1 - 21.2%).



Illustration 77: Daisy fleabane



## Common fleabane

*Erigeron philadelphicus* L. (ERPH)

**Species description:** Common fleabane is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Fuzzy toothed leaves, clasping at stem; hairy stem; white to pink flowers, 100-150 rays.

**Similar species:** Daisy fleabane; goldenrods; horseweed.

**Abundance in the Northeast:** Common fleabane was found on 7% of the farms sampled and 5% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 78: Common fleabane



## Boneset

*Eupatorium perfoliatum* L. (EUPE3)

**Species description:** Boneset is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves toothed, opposite or whorled, pierced leaves; stems hairy; flowers grayish white.

**Similar species:** other Bonsets; Joe-Pye weed; snakeroot

**Abundance in the Northeast:** Boneset was found on 9% of the farms sampled and 4% of the pastures. Its average cover was 1% where present (range 1 - 1%).

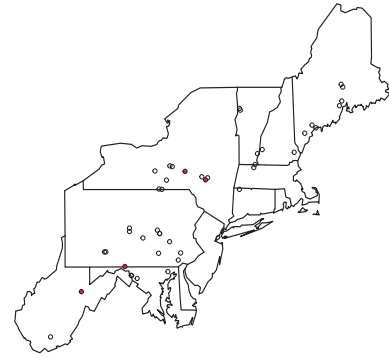
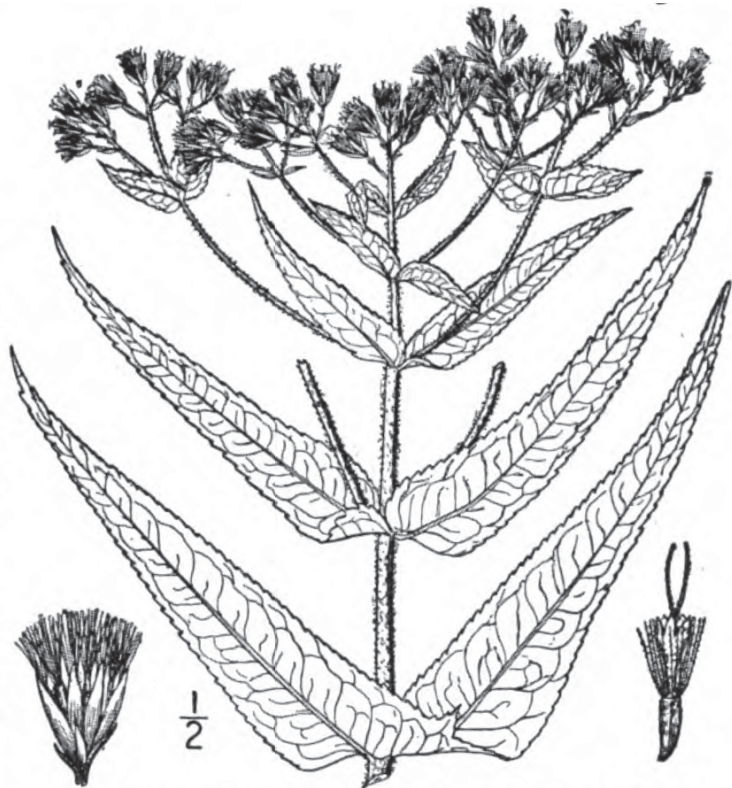


Illustration 79: Boneset



## Hairy galinsoga or quickweed

*Galinsoga parviflora* Cav. (GAPA2)

**Species description:** Hairy galinsoga is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Stems, hairy, many branches; leaves opposite, ovate to triangular, margins coarsely toothed; flowers white, 4-5 rays, several yellow disk flowers.

**Similar species:** other galinsoga; fleabanes.

**Abundance in the Northeast:** Hairy galinsoga was found on 14% of the farms sampled and 7% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 80: Hairy galinsoga



## Chicory

*Cichorium intybus* L. (CIIN)

**Species description:** Chicory is an introduced biennial or perennial forb. It is usually described as a forage species.

**Identifying characteristics:** Rosette of leaves; leaves alternate, lanceolate, toothed but not deeply lobed, often hairy; blue flowers.

**Similar species:** Dandelion.

**Abundance in the Northeast:** Chicory was found on 36% of the farms sampled and 32% of the pastures. Its average cover was 1.9% where present (range 0 - 7.6%).



Illustration 81: Chicory





## Pussytoes

*Antennaria sp.* (ANTEN)

**Species description:** Pussytoes is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** White woolly foliage; leafless stems arising from basal rosette; flowers heads grouped into tight clusters, cat's toes.

**Similar species:** cudweed;

**Abundance in the Northeast:** Pussytoes was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 1.1% where present (range 1.1 - 1.1%).



Illustration 82: Pussytoes



## Hawkweed

*Hieracium* spp. (HIERA)

**Species description:** Hawkweed is an introduced perennial forb. It is not usually described as a forage species.

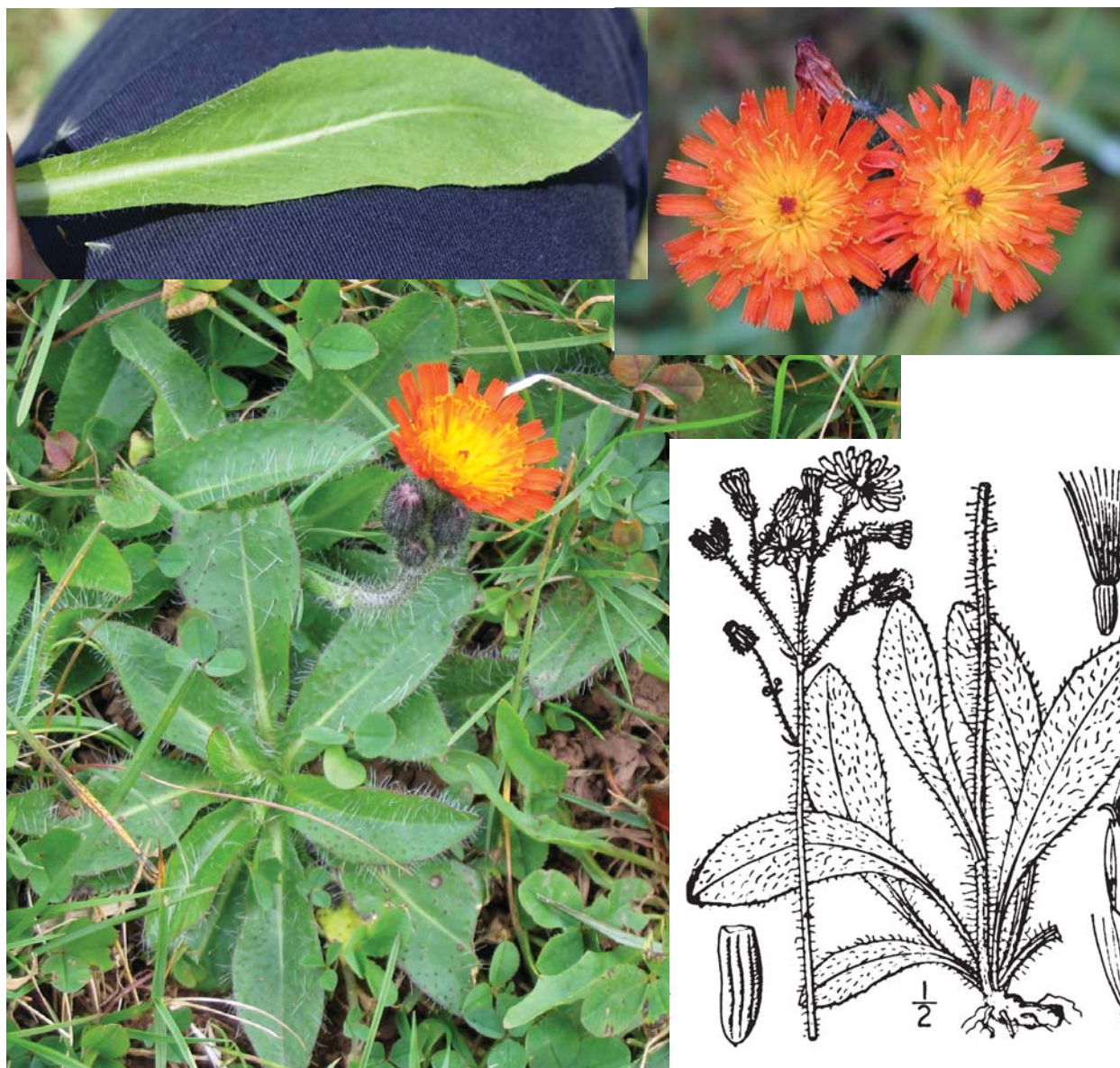
**Identifying characteristics:** Rosette of hairy leaves; hairy stolons; leaves narrow elliptic, covered with long hairs above and below, white midvein; orange or yellow flowers.

**Similar species:** Catsear; dandelion; fall dandelion.

**Abundance in the Northeast:** Hawkweed was found on 27% of the farms sampled and 17% of the pastures. Its average cover was 2.1% where present (range 0.1 - 8.5%).



Illustration 83 : Hawkweed



## Catsear

*Hypochaeris radicata* L. (HYRA3)

**Species description:** Catsear is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Hairy dandelion-like leaves, lobed on margin (Hawkweed not lobed); yellow flowers on tall, mostly leafless stems.

**Similar species:** Hawkweed, fall dandelion.

**Abundance in the Northeast:** Catsear was found on 27% of the farms sampled and 21% of the pastures. Its average cover was 8.2% where present (range 0.1 - 51.5%).



Illustration 84 : Catsear



## Prickly lettuce

*Lactuca serriola* L. (LASE)

**Species description:** Prickly lettuce is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves oblong, alternate, lobed, base clasps the stem, top smooth, hairs below on midvein and margins; yellow flowers.

**Similar species:** Dandelion; sowthistle (lack hairs on midvein).

**Abundance in the Northeast:** Prickly lettuce was found on 18% of the farms sampled and 8% of the pastures. Its average cover was 0.2% where present (range 0.1 - 0.2%).



Illustration 85: Prickly lettuce



## Fall dandelion

*Leontodon autumnalis* L. (LEAU2)

**Species description:** Fall dandelion is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Smooth leaves, deeply lobed; long slender stalks; yellow flowers about 1" wide.

**Similar species:** Catsear.

**Abundance in the Northeast:** Fall dandelion was found on 11% of the farms sampled and 7% of the pastures. Its average cover was 1.1% where present (range 0.2 - 2.3%).



Illustration 86: Fall dandelion



## Dandelion

*Taraxacum officinale* G.H. Weber ex Wiggers (TAOF)

**Species description:** Dandelion is an introduced perennial forb. is not usually described as a forage species.

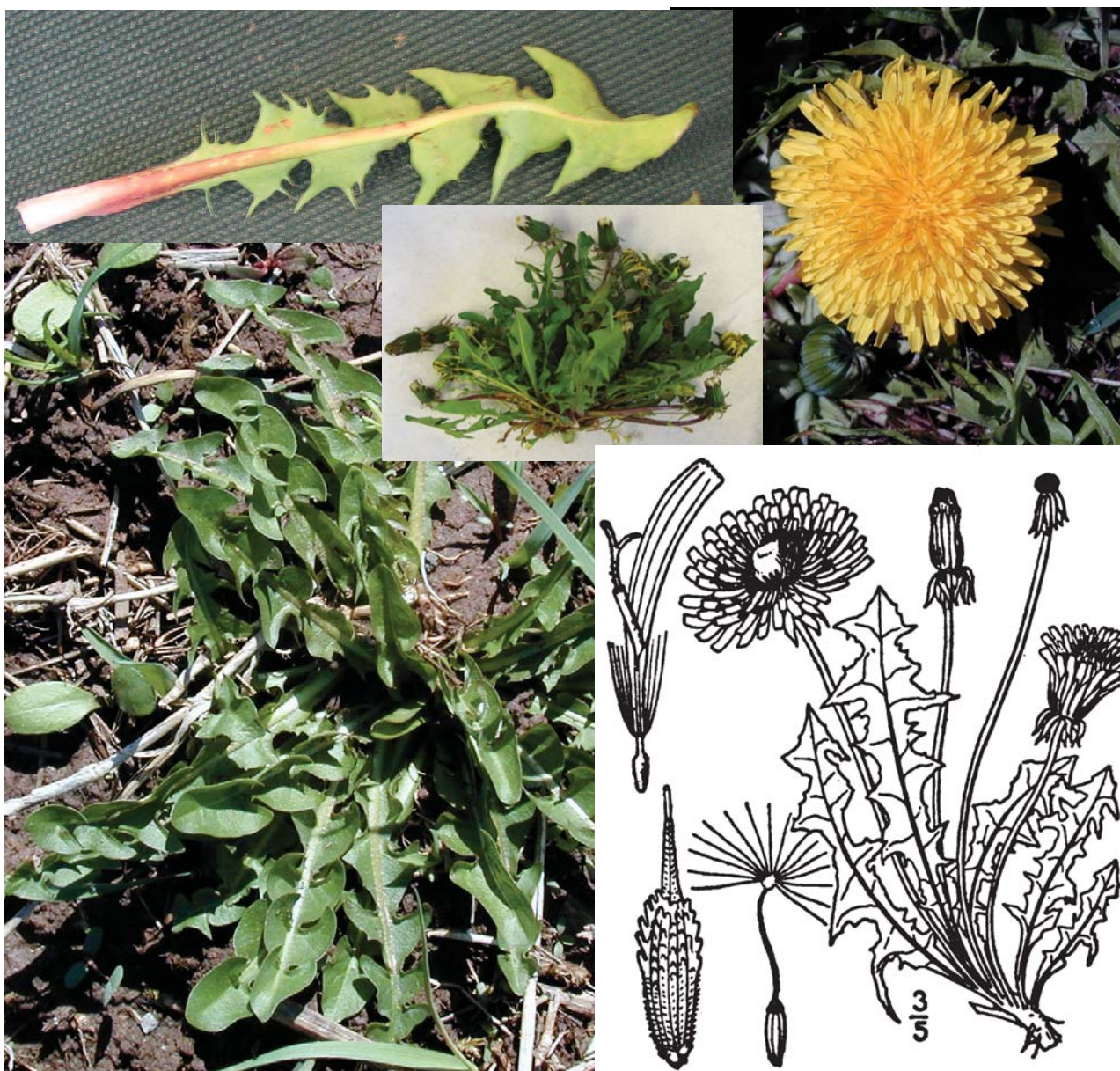
**Identifying characteristics:** Leaves lobed, lobes point towards the base, generally smooth, some hairs on midrib underneath; stems only for flower heads; yellow flowers; exude milky sap.

**Similar species:** catsear; fall dandelion; hawkweed.

**Abundance in the Northeast:** Dandelion was found on 100% of the farms sampled and 99% of the pastures. Its average cover was 6.1% where present (range 0.1 - 58%).



Illustration 87: Dandelion



## Goatsbeard

*Tragopogon pratensis* L. (TRLA30)

**Species description:** Goatsbeard is an introduced biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves long and narrow, grasslike, clasping the stem; large yellow flowers close at noon.

**Similar species:** Aster; fall dandelion.

**Abundance in the Northeast:** Goatsbeard was found on 14% of the farms sampled and 7% of the pastures. Its average cover was 0.2% where present (range 0.1 - 0.3%).



Illustration 88: Goatsbeard



## Field or perennial sowthistle

*Sonchus arvensis* L. (SOAR2)

**Species description:** Field sowthistle is an introduced perennial forb. It is not usually described as a forage species.

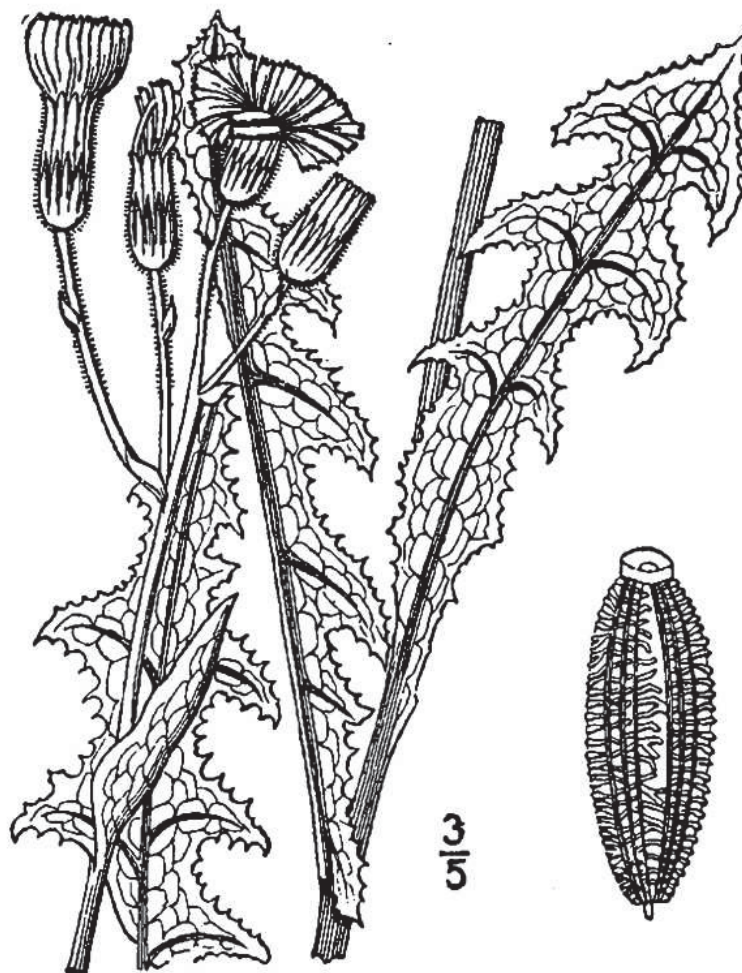
**Identifying characteristics:** Stems smooth, bluish green; leaves alternate, prickly margins, deeply triangular-lobed, lower leaves clasp stem; yellow flowers; milky sap.

**Similar species:** Spiny sowthistle, prickly lettuce (has a spiny midrib).

**Abundance in the Northeast:** Perennial sowthistle was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 89: Perennial sowthistle





## Spiny sowthistle

*Sonchus asper* (L.) Hill (SOAS)

**Species description:** Spiny sowthistle is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, very spiny margins, not lobed, not spiny on midrib, lower curved clasping stem; pale yellow flowers; milky sap.

**Similar species:** Field sowthistle, prickly lettuce (has a spiny midrib).

**Abundance in the Northeast:** Spiny sowthistle was found on 14% of the farms sampled and 10% of the pastures. Its average cover was 0.6% where present (range 0.1 - 2.6%).



Illustration 90: Spiny sowthistle



## Oxeye daisy

*Leucanthemum vulgare* Lam. (LEVU)

**Species description:** Oxeye daisy is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Unbranched smooth stems; leaves are alternate, smooth, with rounded lobes on margins; flowers white daisy like with 20-30 rays surrounding yellow center.

**Similar species:** Leaves are similar to many other composites.

**Abundance in the Northeast:** Oxeye daisy was found on 45% of the farms sampled and 32% of the pastures. Its average cover was 0.6% where present (range 0.1 - 2.1%).



Illustration 91: Oxeye daisy



## Pineappleweed

*Matricaria discoidea* D.C. (MADI6)

**Species description:** Pineappleweed is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves are feathery, alternate, pineapple-scented; flowers are greenish yellow dome-shaped.

**Similar species:** chamomile; mayweed

**Abundance in the Northeast:** Pineappleweed was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 92: Pineappleweed



## Blackeye susan

*Rudbeckia hirta* L. (RUHI2)

**Species description:** Blackeye susan is a native annual, biennial or perennial forb. It is not usually described as a forage species.

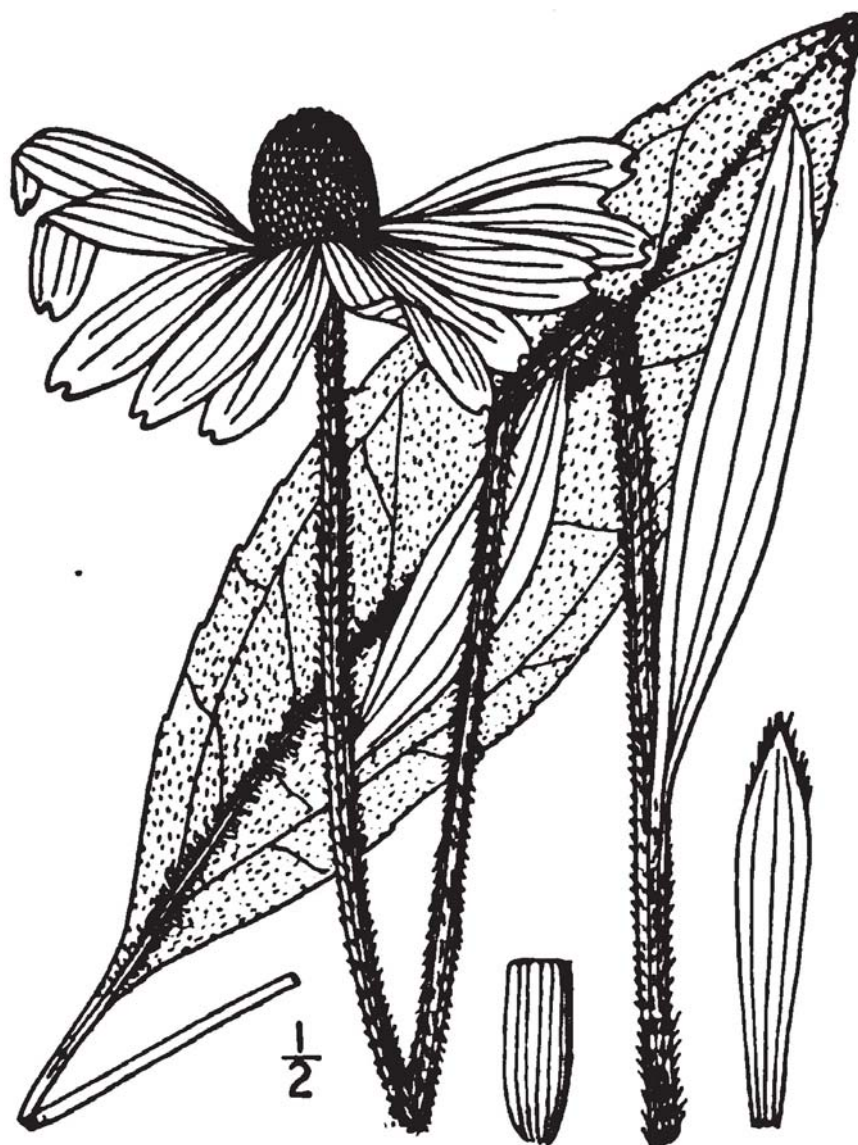
**Identifying characteristics:** Leaves alternate, slightly toothed; stems & leaves hairy; flowers yellow with dark center 2-4" wide

**Similar species:** sneezeweed; sunflowers; cone flowers.

**Abundance in the Northeast:** Blackeye susan was found on 20% of the farms sampled and 9% of the pastures. Its average cover was 0.3% where present (range 0.2 - 0.7%).



Illustration 93: Blackeye susan



## Groundsel

*Senecio vulgaris* L. (SEVU)

**Species description:** Groundsel is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Stems branched, smooth; leaves alternate, mostly smooth, irregularly deeply lobed margins; flowers composed of several yellow disk flowers

**Similar species:** mugwort; ragweed.

**Abundance in the Northeast:** Groundsel was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0.8% where present (range 0.2 - 1.5%).



Illustration 94: Groundsel



## Horseweed

*Conyza canadensis* (L.) Cronq. (COCA5)

**Species description:** Horseweed is a native annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Stems erect, hairy, many small flowering branches; leaves alternate, hairy, crowded along stem; clusters of small white flowers.

**Similar species:** Goldenrods; fleabane; pepperweed.

**Abundance in the Northeast:** Horseweed was found on 16% of the farms sampled and 16% of the pastures. Its average cover was 0.5% where present (range 0.1 - 2.3%).



Illustration 95: Horseweed



## Narrowleaf goldenrod

*Euthamia graminifolia* (L.) Nutt. (EUGRG)

**Species description:** Narrowleaf goldenrod is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves 1/4" wide, lance shaped, 3-5 veins; flat flower cluster at top.

**Similar species:** other goldentrods

**Abundance in the Northeast:** Narrowleaf goldenrod was found on 30% of the farms sampled and 22% of the pastures. Its average cover was 3.8% where present (range 0.1 - 12.7%).



Illustration 96: Narrowleaf goldenrod



## Canada goldenrod

*Solidago canadensis* L. (SOCA6)

**Species description:** Canada goldenrod is a native perennial forb. It is not usually described as a forage species.

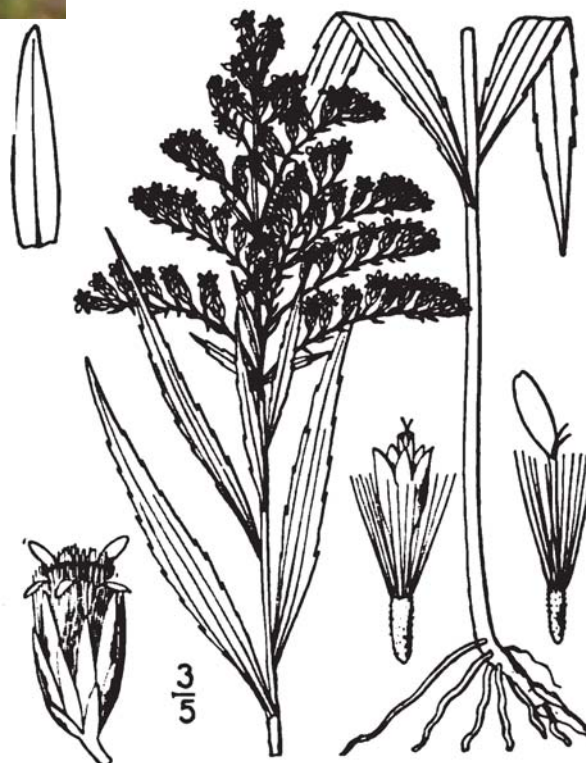
**Identifying characteristics:** Leaves alternate, lance shaped, toothed margins, smooth above, hairy below, 3 veins; stems unbranched; flowers yellow, panicle like cluster.

**Similar species:** All goldenrods.

**Abundance in the Northeast:** Canada goldenrod was found on 25% of the farms sampled and 20% of the pastures. Its average cover was 5.3% where present (range 0.1 - 19.5%).



Illustration 97: Canada goldenrod





## Rough goldenrod

*Solidago rugosa* P. Mill. (SORU2)

**Species description:** Rough goldenrod is a native perennial forb. It is not usually described as a forage species.

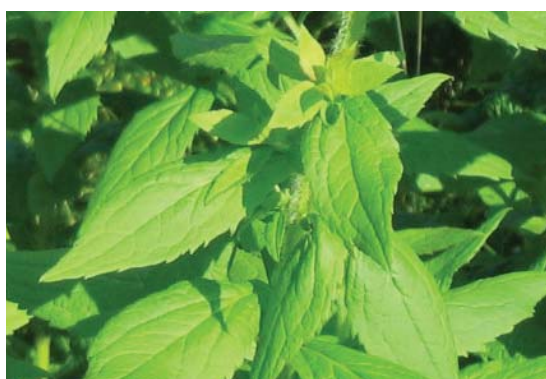
**Identifying characteristics:** Leaves alternate, toothed, rough, deeply veined, not 3 veined, wider than Canada; stems hairy and rough; flowers yellow, panicle like cluster.

**Similar species:** Canada goldenrod

**Abundance in the Northeast:** Rough goldenrod was found on 20% of the farms sampled and 14% of the pastures. Its average cover was 2.8% where present (range 0.1 - 12%).



Illustration 98: Rough goldenrod



## Calico aster

*Symphotrichum lateri lorum* (L.) A.Love & D. Love (SYLA4)

**Species description:** Calico aster is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves lance-shaped, broad, clasping, sharp teeth near middle; flowers white to purple, purple disk, 9-15 rays.

**Similar species:** other asters; fleabanes.

**Abundance in the Northeast:** Calico aster was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 1.1% where present (range 0.2 - 1.8%).



Illustration 99: Calico aster



## New England aster

*Symphyotrichum novae-angliae* (L.) Nesom(SYNO2)

**Species description:** New England aster is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, lance-shaped, clasping; stems stout, bristly-hairy; flowers purple to rose, 1-2" wide, 40-50 rays

**Similar species:** other asters; fleabanes.

**Abundance in the Northeast:** New England aster was found on 20% of the farms sampled and 11% of the pastures. Its average cover was 1.6% where present (range 0.1 - 4.5%).



Illustration 100: New England aster



## Heath aster

*Symphotrichum pilosum* (Willd.) Nesom (SYPIP3)

**Species description:** Heath aster is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, hairy, lanceolate, uppermost sharply pointed; stems stiffly branched, sometimes hairy; flowers white, 16-35 rays, yellow center, 1/4-3/4" wide.

**Similar species:** other asters; fleabanes.

**Abundance in the Northeast:** Heath aster was found on 32% of the farms sampled and 24% of the pastures. Its average cover was 1% where present (range 0.1 - 6.2%).



Illustration 101: Heath aster



## Ironweed

*Vernonia noveboracensis* (L.) Michx. (VENO)

**Species description:** Ironweed is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, toothed, lance-shaped; flowers purple, each head has 30-50 flowers, bracts cover the base of the flower head.

**Similar species:** asters; knapweed.

**Abundance in the Northeast:** Ironweed was found on 9% of the farms sampled and 3% of the pastures. Its average cover was 1.3% where present (range 0.1 - 3.5%).



Illustration 102: Ironweed



## Garlic mustard

*Alliaria petiolata* (Bieb.) Cavara amp Grande (ALPE4)

**Species description:** Garlic mustard is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, coarsely toothed, long stalked, lower leaves triangular shaped, smell of garlic when crushed; flowers white, 1/4-1/3" wide.

**Similar species:** Other mustards and Brassica family members.

**Abundance in the Northeast:** Garlic mustard was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0% where present (range 0 - 0%).

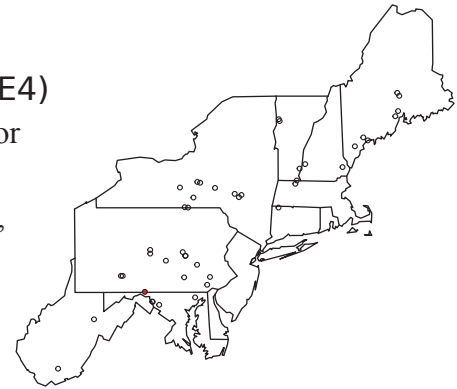


Illustration 103: Garlic mustard



## Yellow rocket or wintercress

*Barbarea vulgaris* Ait. f. (BAVU)

**Species description:** Yellow rocket is an introduced biennial forb. It is not usually described as a forage species.

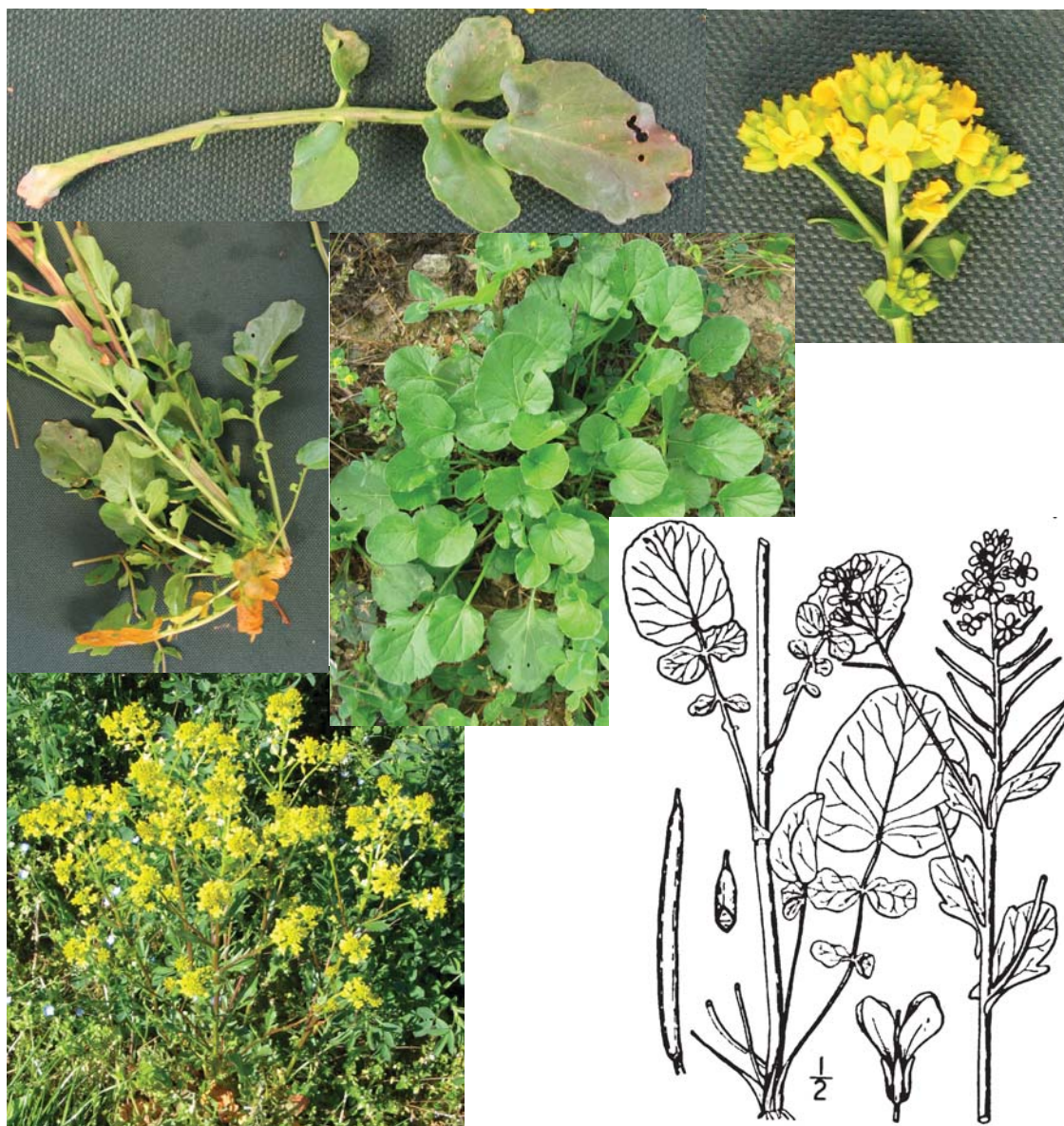
**Identifying characteristics:** Leaves alternate, smooth, deep green, lower leaves lobed, opposite lateral lobes with larger terminal lobe; stems smooth, rigid; flowers bright yellow.

**Similar species:** heart shaped terminal lobe separates it from other mustards

**Abundance in the Northeast:** Yellow rocket; wintercress was found on 50% of the farms sampled and 40% of the pastures. Its average cover was 0.6% where present (range 0 - 6.6%).



Illustration 104: Yellow rocket



## Field mustard

*Brassica rapa* L. (BRRA)

**Species description:** Field mustard is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, hairy, lower leaves lobed, middle and upper leaves entire or toothed and clasp to stem; fruit capsules; yellow flowers 1/2" wide.

**Similar species:** Other mustards and Brassica family members

**Abundance in the Northeast:** Field mustard was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).

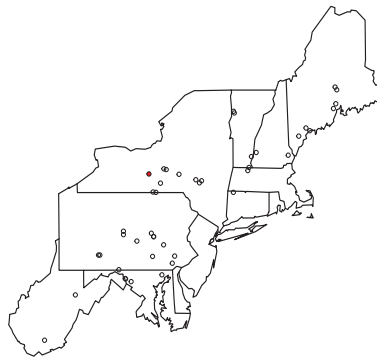
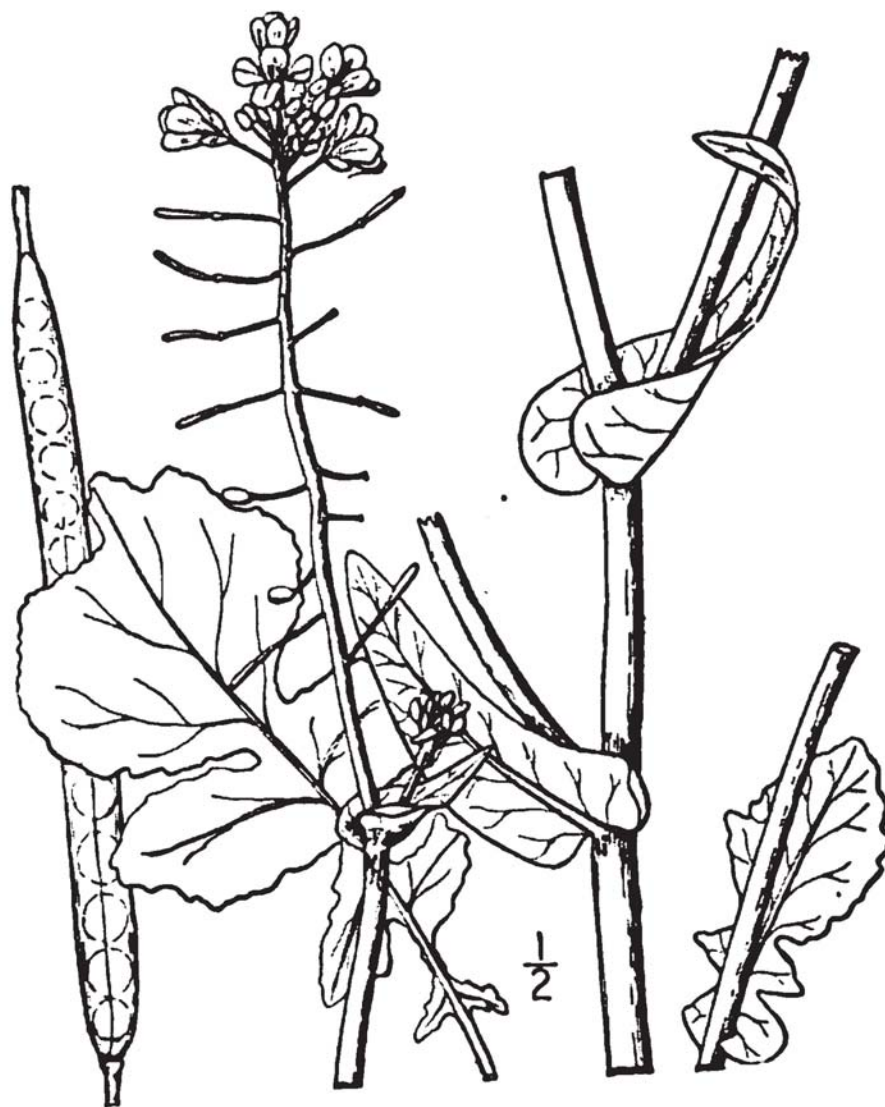


Illustration 105: Field mustard





## Shepherds purse

*Capsella bursa-pastoris* (L.) Medik. (CABU2)

**Species description:** Shepherds purse is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, hairy, smooth, variously toothed or lobed; stems erect, slender, hairy; flowers white, inconspicuous; fruit are heart-shaped seedpods.

**Similar species:** Virginia pepperweed

**Abundance in the Northeast:** Shepherds purse was found on 39% of the farms sampled and 27% of the pastures. Its average cover was 0.7% where present (range 0.1 - 5.7%).



Illustration 106: Shepherds purse



## Hairy bittercress

*Cardamine hirsuta* L. (CAH13)

**Species description:** Hairy bittercress is an introduced annual forb. It is not usually described as a forage species.

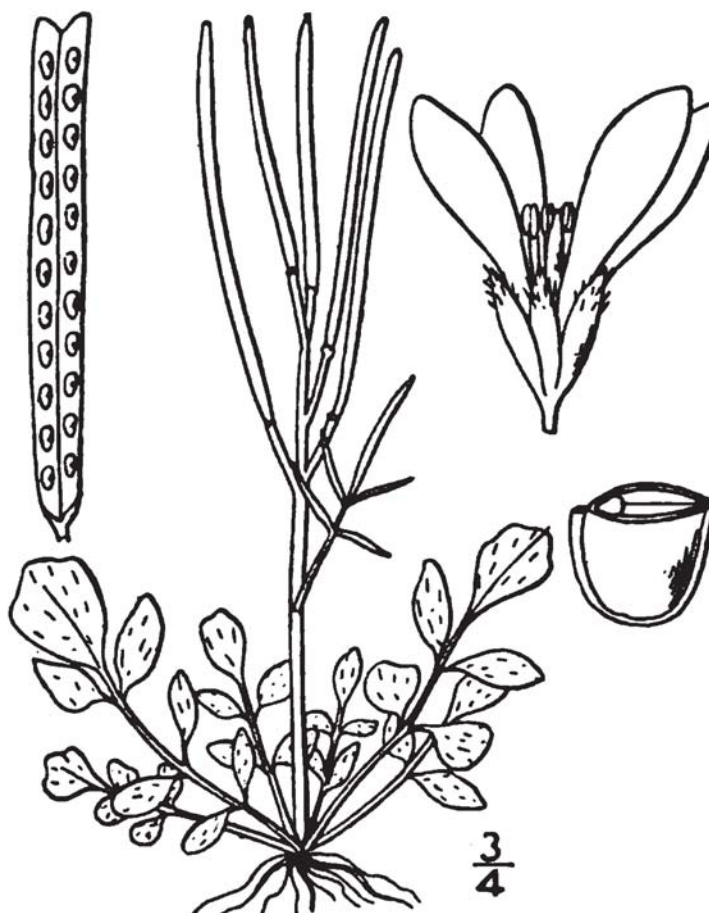
**Identifying characteristics:** Leaves pinnate with 1-3 pairs of alternate, kidney shaped leaflets, petioles hairy; flowers small, white; small rosette; seeds flattened capsule, 1.5-2.5 cm long.

**Similar species:** Other mustards and Brassica family members

**Abundance in the Northeast:** Hairy bittercress was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 107: Hairy bittercress



## Field pepperweed

*Lepidium campestre* (L.) Ait. f. (LECA5)

**Species description:** Field pepperweed is an introduced annual or biennial forb. It is not usually described as a forage species.

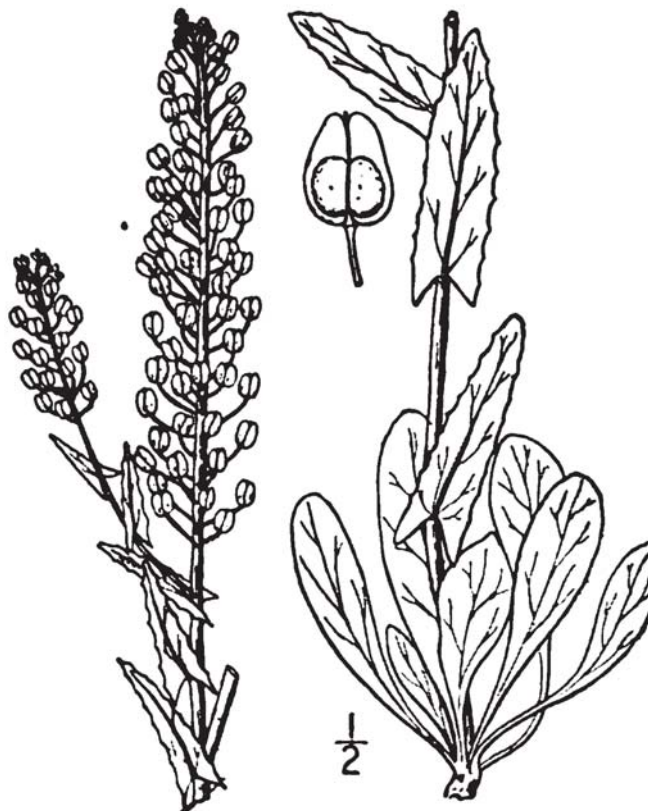
**Identifying characteristics:** Basal leaves are lanceolate, margins entire, toothed or lobed, upper leaves are alternate, arrow shaped, clasping to stem; flowers white, raceme; Oval seedpod with wing like structures at apex, bottlebrush look.

**Similar species:** Virginia pepperweed, field pennycress.

**Abundance in the Northeast:** Field pepperweed was found on 16% of the farms sampled and 12% of the pastures. Its average cover was 4.3% where present (range 0.1 - 23.2%).



Illustration 108: Field pepperweed



## Virginia pepperweed

*Lepidium virginicum* L. (LEVI3)

**Species description:** Virginia pepperweed is a native annual, biennial or perennial forb. It is not usually described as a forage species.

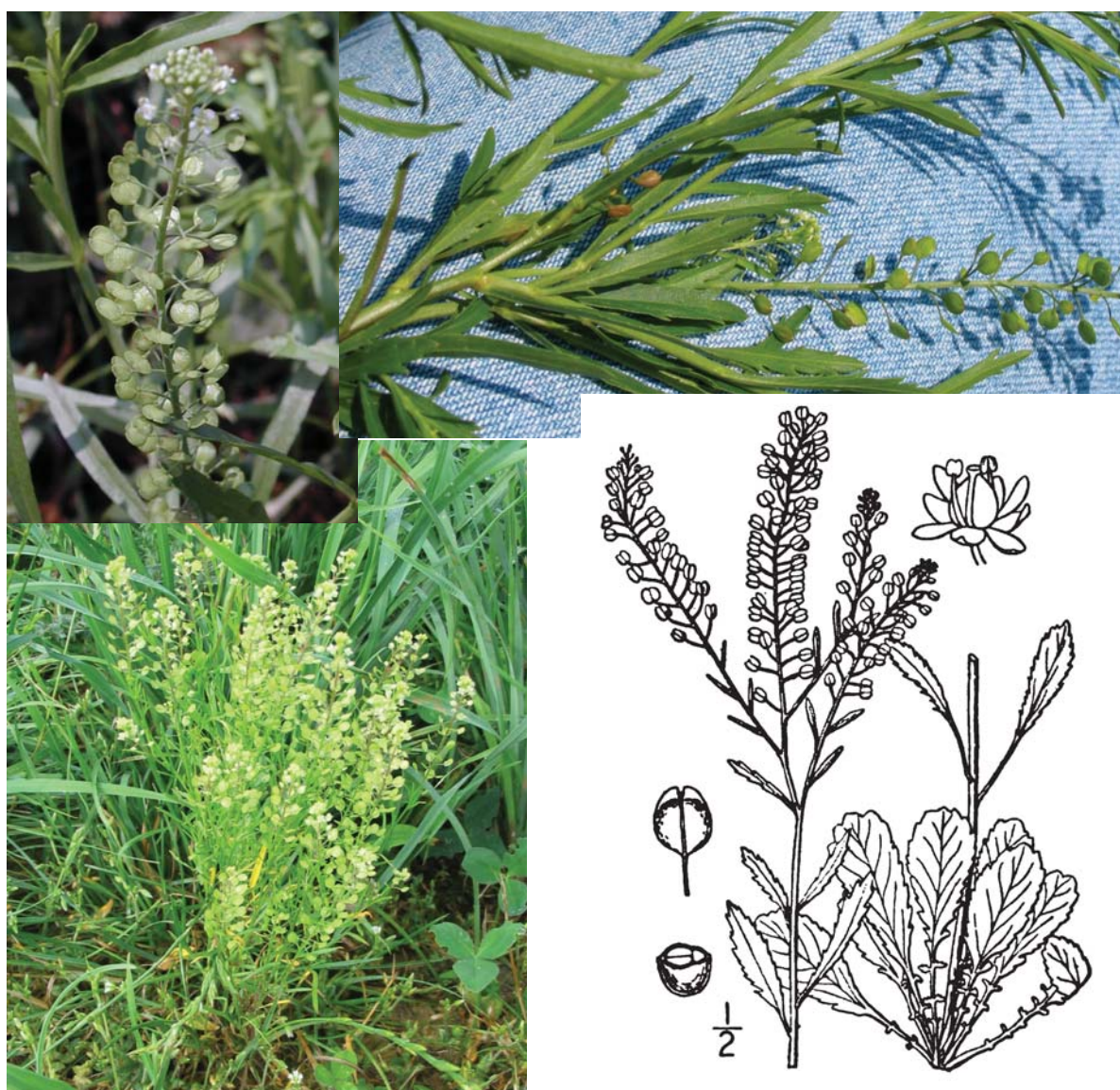
**Identifying characteristics:** Basal and lower leaves lack hairs, pinnately lobed, toothed margins, upper leaves are pointed at apex, narrow to base; flowers white, raceme; rounded seed pod notched at apex, pepper taste.

**Similar species:** Field pepperweed, field pennycress.

**Abundance in the Northeast:** Virginia pepperweed was found on 25% of the farms sampled and 15% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.8%).



Illustration 109:  
Virginia pepperweed



## Hedge mustard

*Sisymbrium officinale* (L.) Scop. (SIOF)

**Species description:** Hedge mustard is an introduced annual forb. It is not usually described as a forage species.

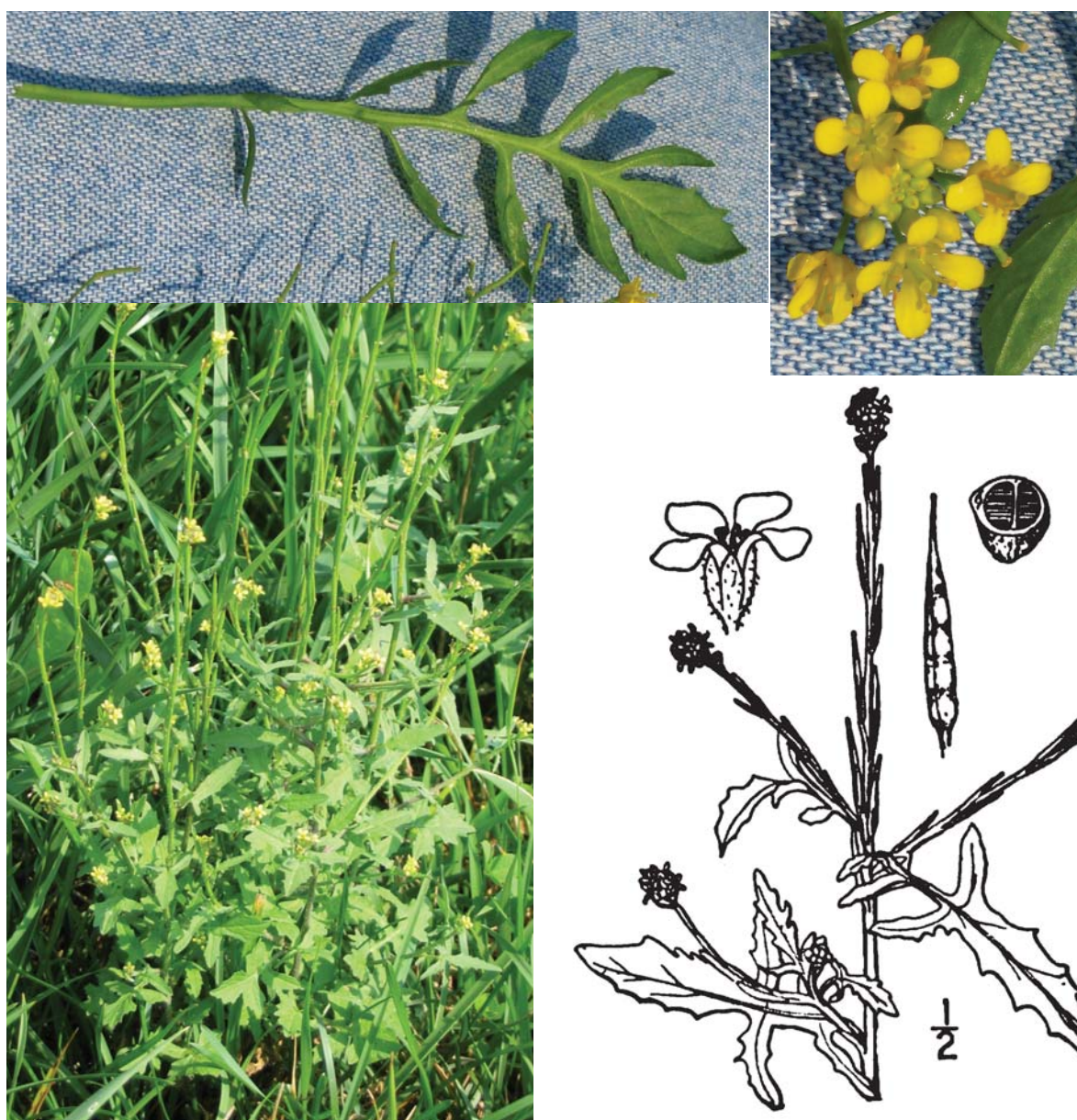
**Identifying characteristics:** Leaves alternate, lobed with wide irregular toothed segments, top and bottom hairy; stems hairy; flowers yellow; long narrow seedpods.

**Similar species:** Other mustards and Brassica family members.

**Abundance in the Northeast:** Hedge mustard was found on 36% of the farms sampled and 28% of the pastures. Its average cover was 1.1% where present (range 0.1 - 5%).



Illustration 110:  
Hedge mustard



## Field pennycress

*Thlaspi arvense* L. (THAR5)

**Species description:** Field pennycress is an introduced annual forb. It is not usually described as a forage species.

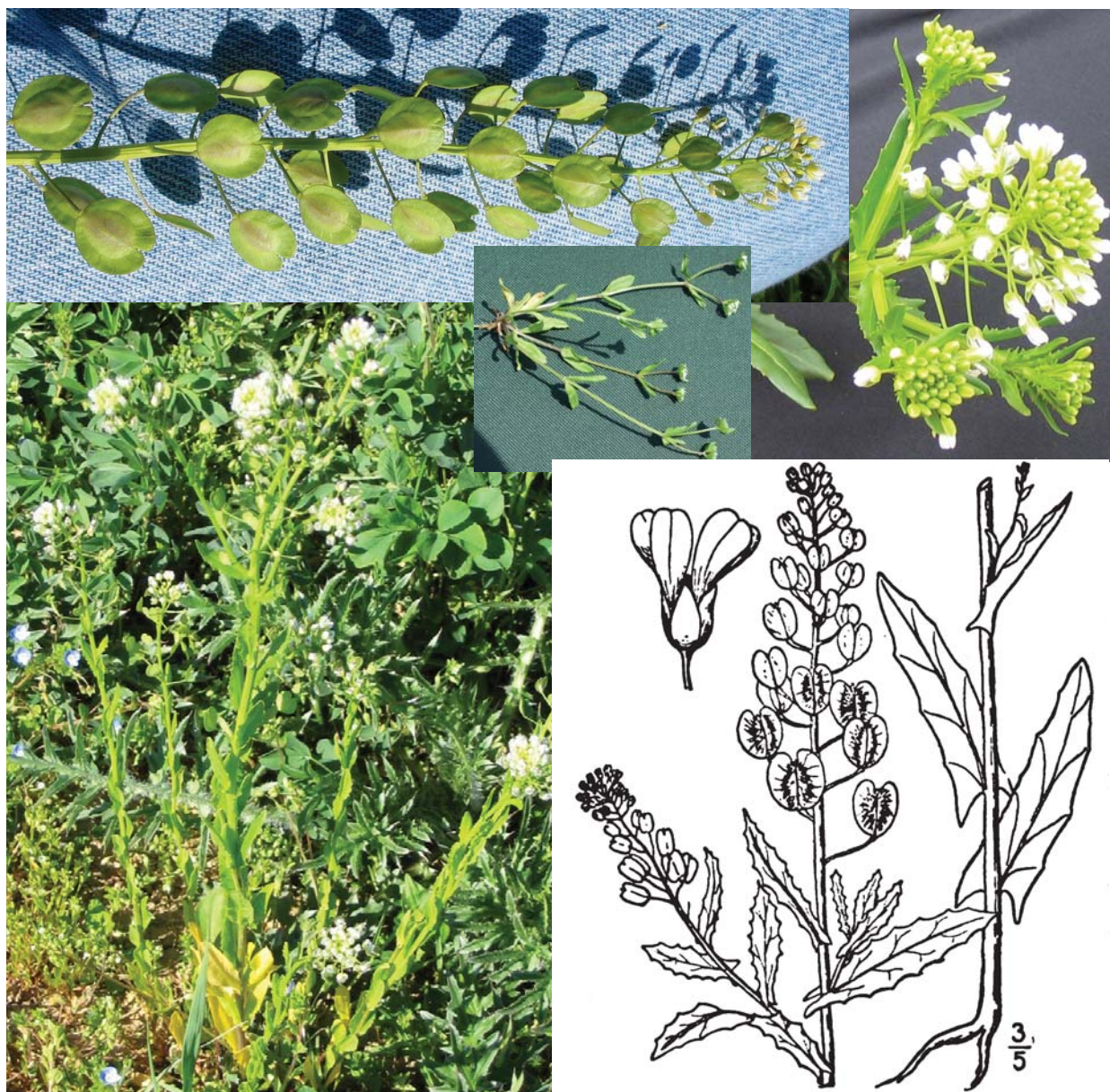
**Identifying characteristics:** Leaves egg-shaped, hairless, clasp stem; stems smooth, unbranched; flowers racemes white; large round seedpod (1.3 cm dia.), winged, notched at tip.

**Similar species:** Virginia pepperweed, field pepperweed.

**Abundance in the Northeast:** Field pennycress was found on 14% of the farms sampled and 8% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 111:  
Field pennycress



## Indian tobacco

*Lobelia inflata* L. (LOIN)

**Species description:** Indian tobacco is a native annual forb. It is not usually described as a forage species.

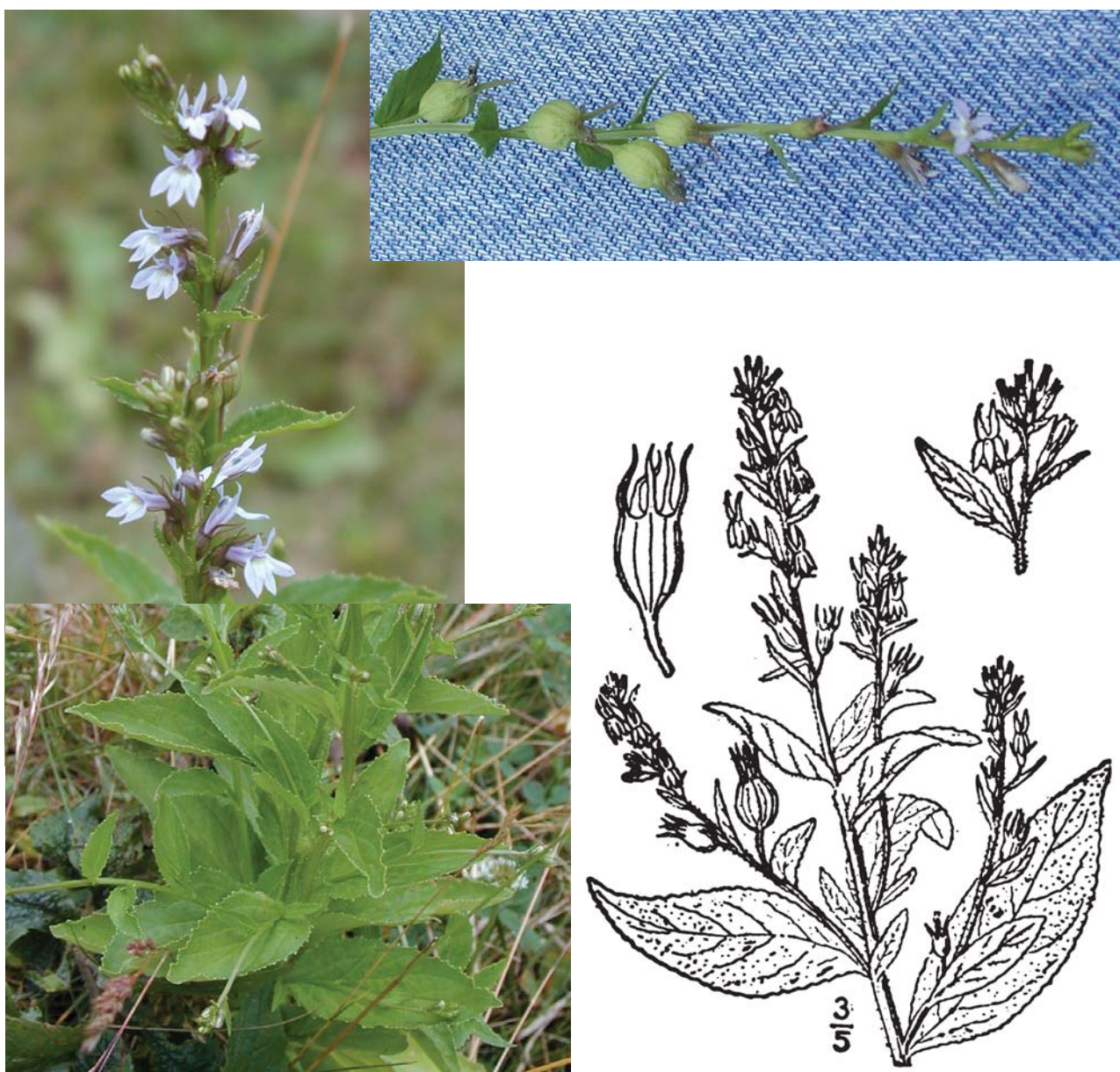
**Identifying characteristics:** Leaves alternate, ovate (8 cm), toothed; stems branched, hairy, milky sap; flowers blue, irregular, 2-lipped, in a raceme, balloon-like flower bases.

**Similar species:** other lobelias and bellflowers

**Abundance in the Northeast:** Indian tobacco was found on 30% of the farms sampled and 16% of the pastures. Its average cover was 1.3% where present (range 0.1 - 8.6%).



Illustration 112: Indian tobacco



## Mouse-ear chickweed

*Cerastium fontanum* Baumg. (CEFO2)

**Species description:** Mouse-ear chickweed is an introduced biennial or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, very hairy, oval to elliptic, margins entire; stems round, hairy; flowers white, 5 petals.

**Similar species:** Chickweeds, thymeleaf speedwell (smooth), scarlet pimpernel (square stem).

**Abundance in the Northeast:** Mouse-ear chickweed was found on 77% of the farms sampled and 52% of the pastures. Its average cover was 0.4% where present (range 0.1 - 2.8%).



Illustration 113: Mouse-ear chickweed





## Deptford pink

*Dianthus armeria* L. (DIAR)

**Species description:** Deptford pink is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, entire, narrow (1/2" wide), flowers pink with white dots.

**Similar species:** other pinks; stitchwort.

**Abundance in the Northeast:** Deptford pink was found on 16% of the farms sampled and 11% of the pastures. Its average cover was 0.4% where present (range 0.1 - 0.8%).



Illustration 114: Deptford pink



## White or bladder campion

*Silene latifolia* Poir. (SILA21)

**Species description:** White campion is an introduced biennial or perennial forb. It is not usually described as a forage species.

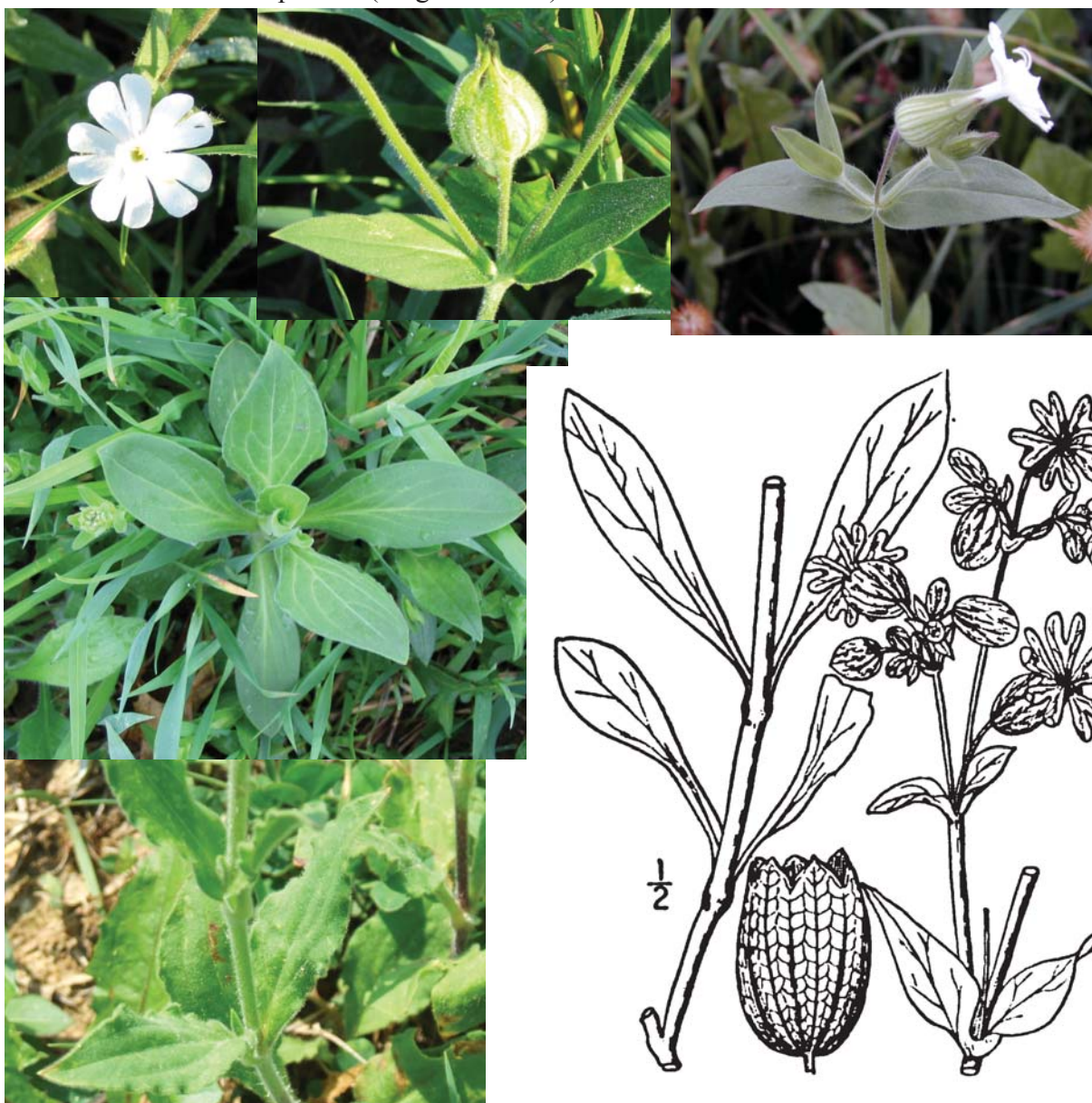
**Identifying characteristics:** Leaves opposite, entire, lanceolate, hairy on surfaces and margins; stems hairy; flowers white, 5 styles, (catchfly has 3) inflated base.

**Similar species:** nightflowering catchfly; other campions, asters.

**Abundance in the Northeast:** White campion was found on 32% of the farms sampled and 21% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1%).



Illustration 115: White campion



## Stitchwort

*Stellaria graminea* L. (STGR)

**Species description:** Stitchwort is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, narrow, succulent; flowers white, five divided petals; stems smooth square, branched, root at nodes.

**Similar species:** Chickweeds; bedstraw; carpetweed.

**Abundance in the Northeast:** Stitchwort was found on 52% of the farms sampled and 37% of the pastures. Its average cover was 3.4% where present (range 0.1 - 25%).



Illustration 116: Stitchwort



## Common chickweed

*Stellaria media* (L.) Vill. (STME2)

**Species description:** Common chickweed is an introduced annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, egg shaped, 1-3 cm long, pointed at apex; stems prostrate, 1 or 2 rows of hairs; flowers white with five divided petals, 3 styles.

**Similar species:** Chickweeds; stitchwort.

**Abundance in the Northeast:** Common chickweed was found on 45% of the farms sampled and 33% of the pastures. Its average cover was 1.1% where present (range 0.1 - 8%).



Illustration 117:  
Common chickweed



## Star or great chickweed

*Stellaria pubera* Michx. (STPU)

**Species description:** Star chickweed; great chickweed is a native annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, entire; robust plant, 1 ft tall; flowers white, five divided petals, 1/2" wide.

**Similar species:** Chickweeds.

**Abundance in the Northeast:** Star chickweed was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 118:  
Star chickweed



## Lambsquarters

*Chenopodium album* L. (CHAL7)

**Species description:** Lambsquarters is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, 3-10 cm long, irregularly toothed, grey mealy coating; stems erect, branching, maroon stripes; flowers green aggregated into panicle.

**Similar species:** pigweeds.

**Abundance in the Northeast:** Lambsquarters was found on 45% of the farms sampled and 42% of the pastures. Its average cover was 1% where present (range 0.1 - 13.9%).



Illustration 119:  
Lambsquarters



## Dwarf St. Johnswort

*Hypericum mutilum* L. (HYMU)

**Species description:** Dwarf St. Johnswort is a native annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, entire, elliptical, 1/2-1" long; flowers yellow, 5-12 stamens, 1/6" wide.

**Similar species:** Common St. Johnswort; Spotted St. Johnswort

**Abundance in the Northeast:** Dwarf St. Johnswort was found on 11% of the farms sampled and 4% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.5%).



Illustration 120: Dwarf St. Johnswort



## Common St. Johnswort

*Hypericum perforatum* L. (HYPE)

**Species description:** St. Johnswort is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, 1 1/2" long or less; flowers golden yellow, more than 20 stamens, 3/4-1" wide, petals dotted on edges.

**Similar species:** Dwarf St. Johnswort; Spotted St. Johnswort

**Abundance in the Northeast:** St. Johnswort was found on 5% of the farms sampled and 5% of the pastures. Its average cover was 0.2% where present (range 0.1 - 0.2%).



Illustration 121: Common St. Johnswort





## Spotted St. Johnswort

*Hypericum punctatum* Lam. (HYPU)

**Species description:** Spotted St. Johnswort is a native perennial forb. It is not usually described as a forage species.

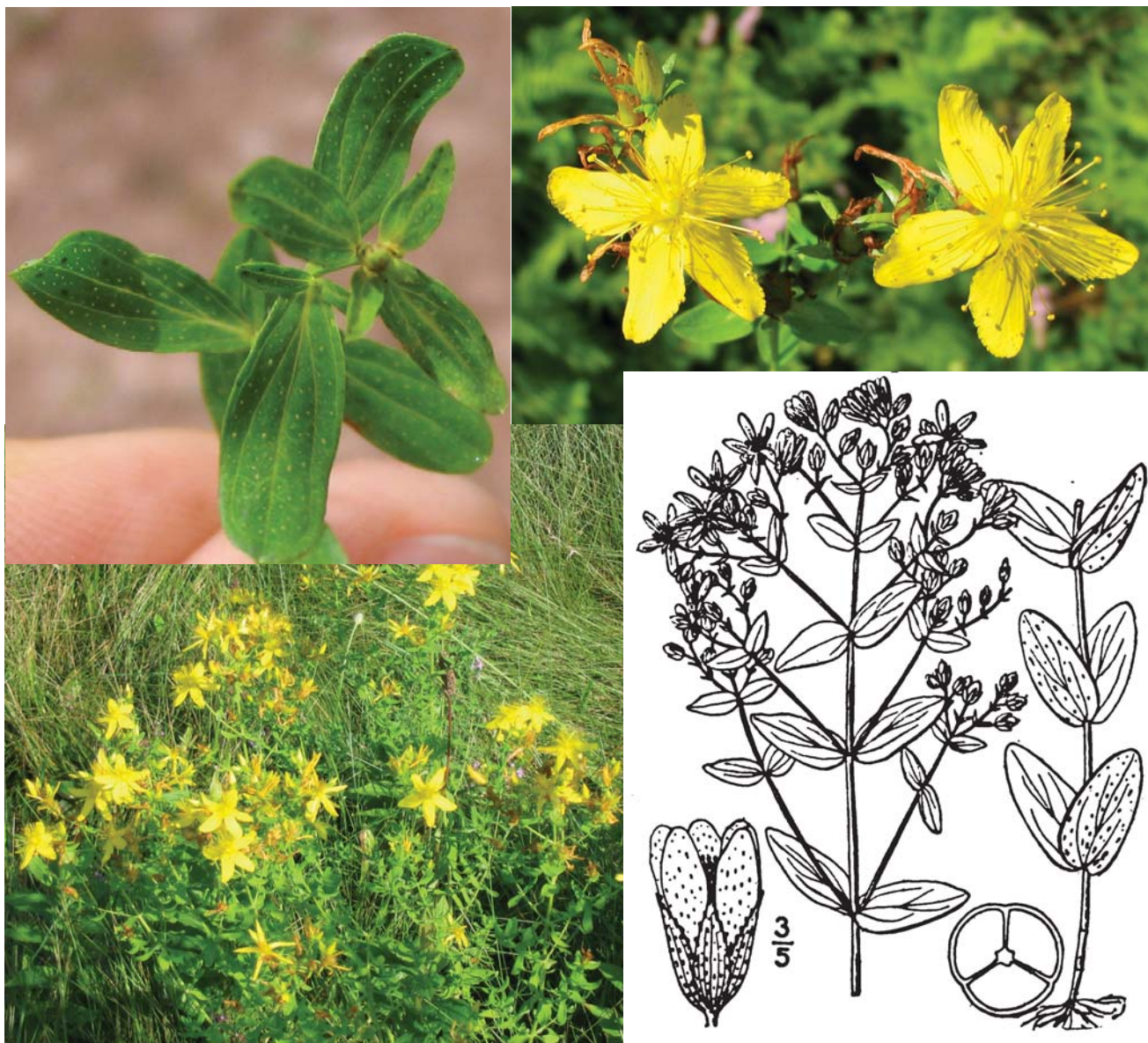
**Identifying characteristics:** Leaves opposite, entire, 1 1/2-3" long, glandular dots on leaves and petals; flowers yellow, 1/3-2/3" wide, 20 or more stamens.

**Similar species:** Common St. Johnswort, Dwarf St. Johnswort.

**Abundance in the Northeast:** Spotted St. Johnswort was found on 23% of the farms sampled and 13% of the pastures. Its average cover was 0.6% where present (range 0.1 - 1.5%).



Illustration 122: Spotted St. Johnswort



## Field Bindweed

*Convolvulus arvensis* L. (COAR4)

**Species description:** Bindweed is an introduced perennial forb. It is not usually described as a forage species.

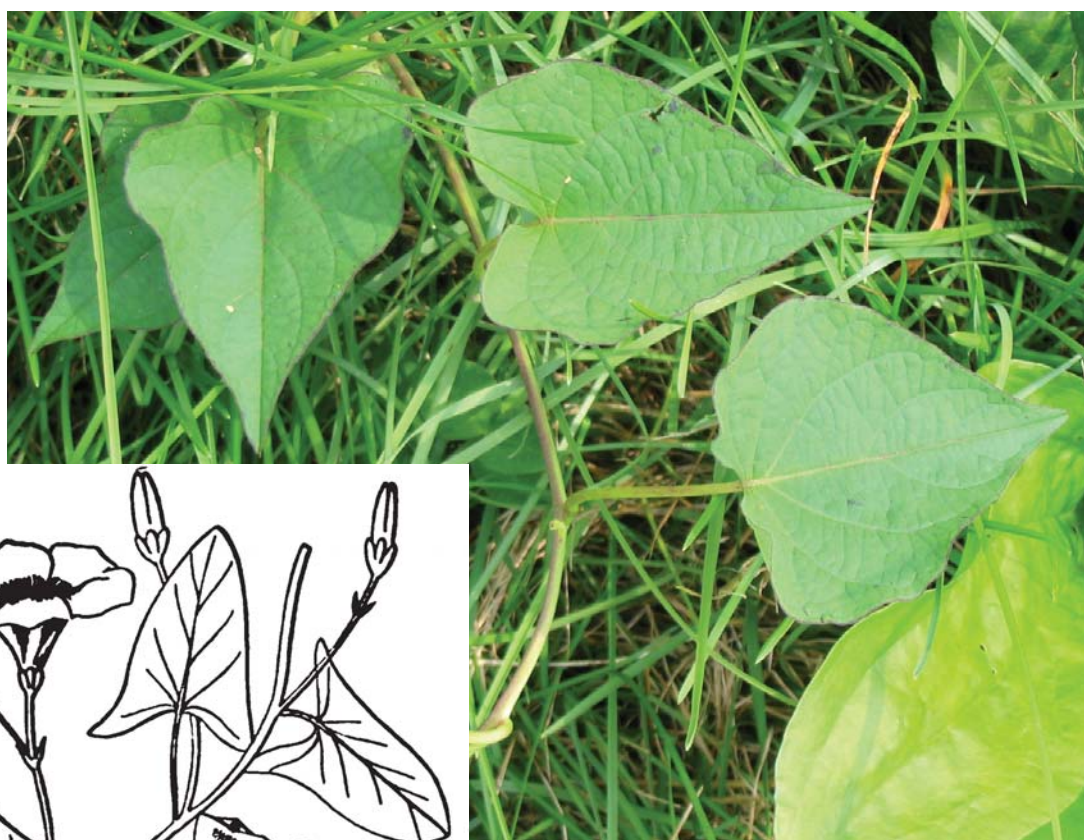
**Identifying characteristics:** Leaves, alternate, arrowhead-shaped on long petioles; stems smooth, trail along ground and climb; flowers white or pink, funnel shaped.

**Similar species:** bindweeds; morningglory; wild buckwheat

**Abundance in the Northeast:** Bindweed was found on 18% of the farms sampled and 16% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1%).



Illustration 123: Field bindweed



## Teasel

*Dipsacus fullonum* ssp. *sylvestris* L. ssp. *sylvestris* (Huds.) Clapham (DIFUS2)

**Species description:** Teasel is an introduced biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, 20-60 cm long, prickly lower midrib, look wrinkled; stems spiny; flowers egg shaped, white to purple, large spiny bracts curving around head.

**Similar species:** thistles have spines on leaf margins

**Abundance in the Northeast:** Teasel was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0.2% where present (range 0.1 - 0.2%).

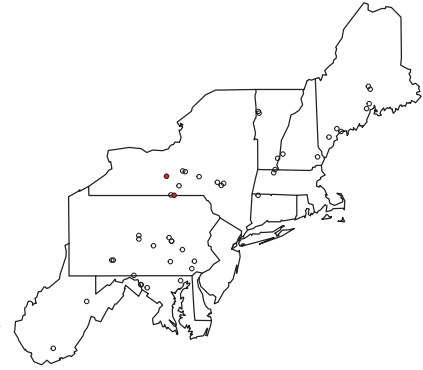
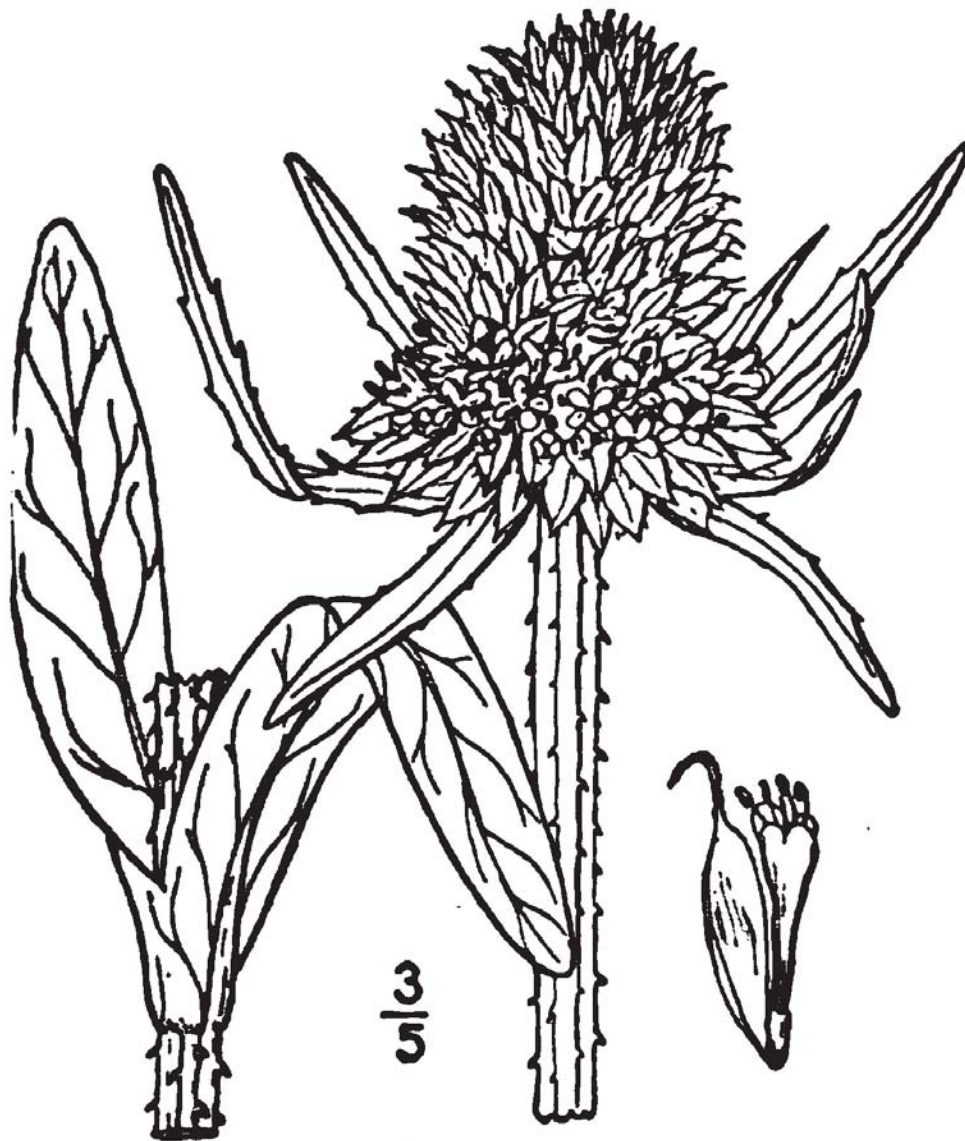


Illustration 124: Teasel



## Virginia copperleaf

*Acalypha virginica* L. (ACVI)

**Species description:** Virginia copperleaf is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate at top and opposite at base, lanceolate, young leaves copper colored; stems hairy; flowers clustered in leaf axis, green.

**Similar species:** Galinsoga; three seeded Mercury

**Abundance in the Northeast:** Virginia copperleaf was found on 34% of the farms sampled and 22% of the pastures. Its average cover was 0.4% where present (range 0.1 - 3.3%).



Illustration 125: Virginia copperleaf



## Spotted spurge

*Chamaesyce maculata* (L.) Small (CHMA15)

**Species description:** Spotted spurge is a native annual forb.

It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, oblong, on short petioles with stipules, green with maroon blotch; stems pinkish, densely hairy, milky sap; flowers in axis of upper leaves.

**Similar species:** other spurge; prostrate knotweed (no sap)

**Abundance in the Northeast:** Spotted spurge was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0.7% where present (range 0.1 - 4.5%).



Illustration 126: Spotted spurge



## Geranium

*Geranium maculatum* L. (GEMA)

**Species description:** Geranium is a native perennial forb. It is not usually described as a forage species.

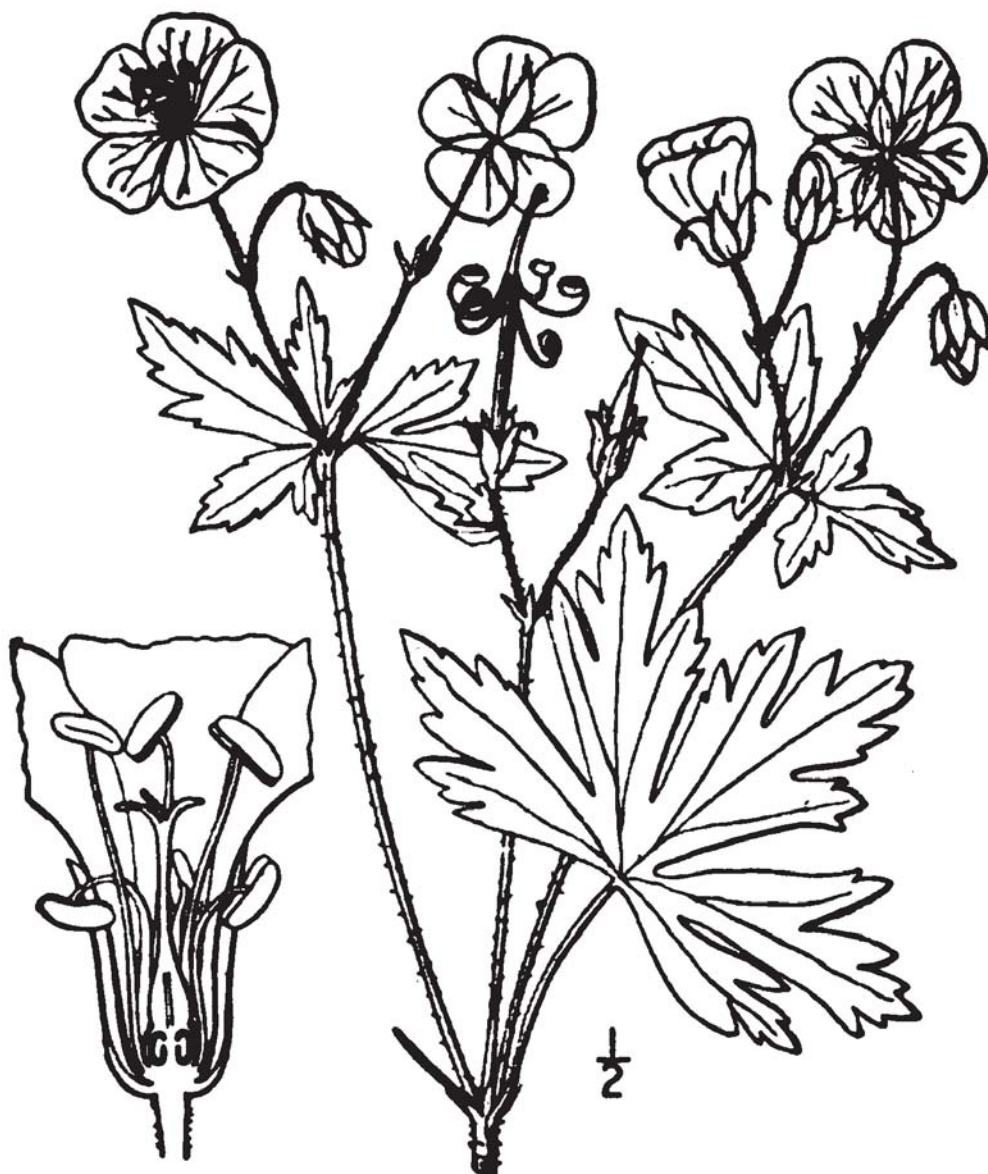
**Identifying characteristics:** Leaves opposite, deeply and irregularly cleft in to 3-5 lobes; stems, densely hairy, pink to red; flowers rose-purple, 1-1 1/2" wide.

**Similar species:** other geraniums; cinquefoils

**Abundance in the Northeast:** Geranium was found on 14% of the farms sampled and 7% of the pastures. Its average cover was 2.9% where present (range 0.1 - 16.6%).



Illustration 127: Geranium



## Ground ivy

*Glechoma hederacea* L. (GLHE2)

**Species description:** Ground ivy is an introduced perennial forb. It is not usually described as a forage species.

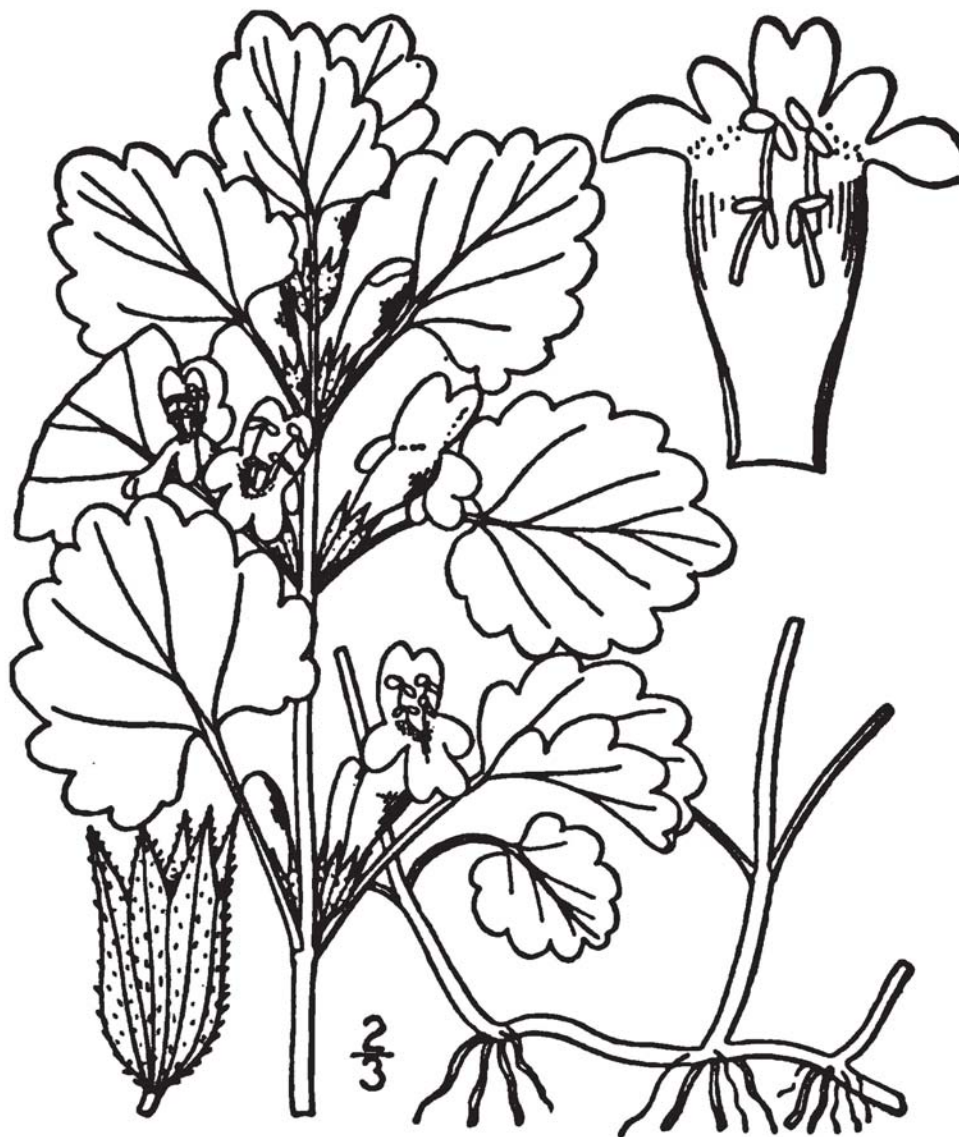
**Identifying characteristics:** Leaves opposite, toothed margins, 3-5 cm petioles, palmately veined, aromatic; stems creeping, square, maybe short hairs; flowers 2 lipped, purple

**Similar species:** speedwell; henbit; common mallow

**Abundance in the Northeast:** Ground ivy was found on 14% of the farms sampled and 7% of the pastures. Its average cover was 4.5% where present (range 0.1 - 14.5%).



Illustration 128: Ground ivy



## Henbit deadnettle

*Lamium amplexicaule* L. (LAAM)

**Species description:** Henbit deadnettle is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves round, opposite, lobed, palmately veined, encircling stem at base; stems smooth, square, flowers purple, whorls in the axis of upper leaves

**Similar species:** Purple deadnettle; persian speedwell

**Abundance in the Northeast:** Henbit deadnettle was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 1% where present (range 0.1 - 1.8%).



Illustration 129:  
Henbit deadnettle





## Purple deadnettle

*Lamium purpureum* L. (LAPU2)

**Species description:** Purple deadnettle is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves triangular, opposite, reddish, less lobed, petiolated upper leaves; stems, square, reddish color; flowers lighter purple than henbit.

**Similar species:** Henbit deadnettle.

**Abundance in the Northeast:** Purple deadnettle was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).



Illustration 130:  
Purple deadnettle

**Purple deadnettle**

**Henbit**



## Mint

*Mentha spp.* (MENTH)

**Species description:** Mint is a native perennial forb. It is not usually described as a forage species.

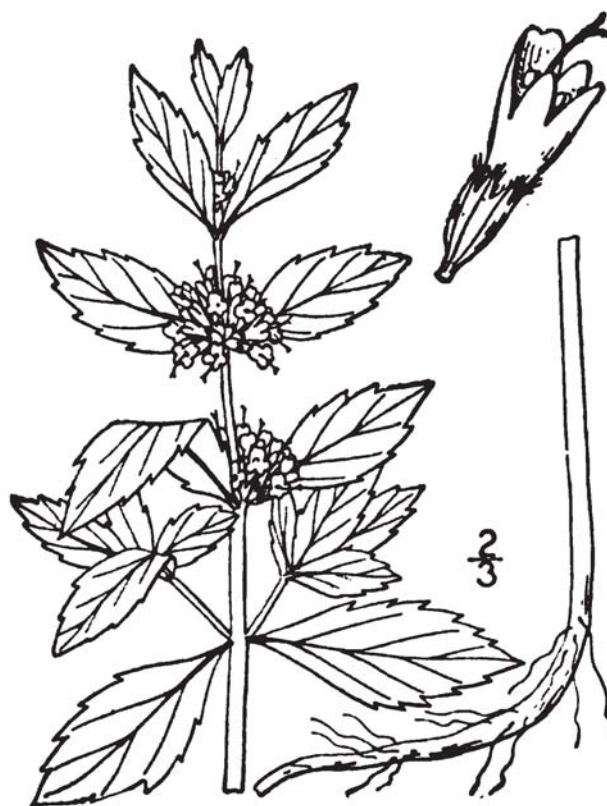
**Identifying characteristics:** Leaves aromatic, opposite, oblong; stems square, hairy; flowers small, lilac, forming spikes or whorled at leaf axis.

**Similar species:** all mints; Catnip; bugleweed; horehound

**Abundance in the Northeast:** Mint was found on 9% of the farms sampled and 3% of the pastures. Its average cover was 3% where present (range 3 - 3%).



Illustration 131: Mint



## Beebalm

*Monarda sp.*(MONAR)

**Species description:** Beebalm is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves aromatic, opposite, oblong, toothed; stems square, hairy; flowers dense heads 1" or more with stamens protruding beyond upper petal, pink-purple.

**Similar species:** mints; Teas; Bergamot; coneflower.

**Abundance in the Northeast:** Beebalm was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 132: Beebalm



## Catnip

*Nepeta cataria* L. (NECA2)

**Species description:** Catnip is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves heart shaped, opposite, aromatic, fuzzy, toothed, longer than wide; stems square hairy; flowers pale lilac, purple spotted, 1/2" long, spikes.

**Similar species:** Other mints (catnip is a mint).

**Abundance in the Northeast:** Catnip was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 133: Catnip



## Healall

*Prunella vulgaris* L. (PRVU)

**Species description:** Healall is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, petioles, ovate, some hairs to smooth; stems square, hairy; flowers dense spike at end of stem, fused tube of petals, purple.

**Similar species:** Purple deadnettle; henbit; creeping thyme.

**Abundance in the Northeast:** Healall was found on 55% of the farms sampled and 39% of the pastures. Its average cover was 0.9% where present (range 0.1 - 6.2%).



Illustration 134: Healall



## Wild garlic

*Allium vineale* L. (ALVI)

**Species description:** Wild garlic is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves grass like, hollow, round, smells of onion; flowers globe shaped, top of stem, purple-pink.

**Similar species:** wild onion, grasses

**Abundance in the Northeast:** Wild garlic was found on 11% of the farms sampled and 7% of the pastures. Its average cover was 0.3% where present (range 0.1 - 1.4%).



Illustration 135: Wild garlic



## Velvetleaf

*Abutilon theophrasti* Medik. (ABTH)

**Species description:** Velvetleaf is an introduced annual forb. It is not usually described as a forage species.

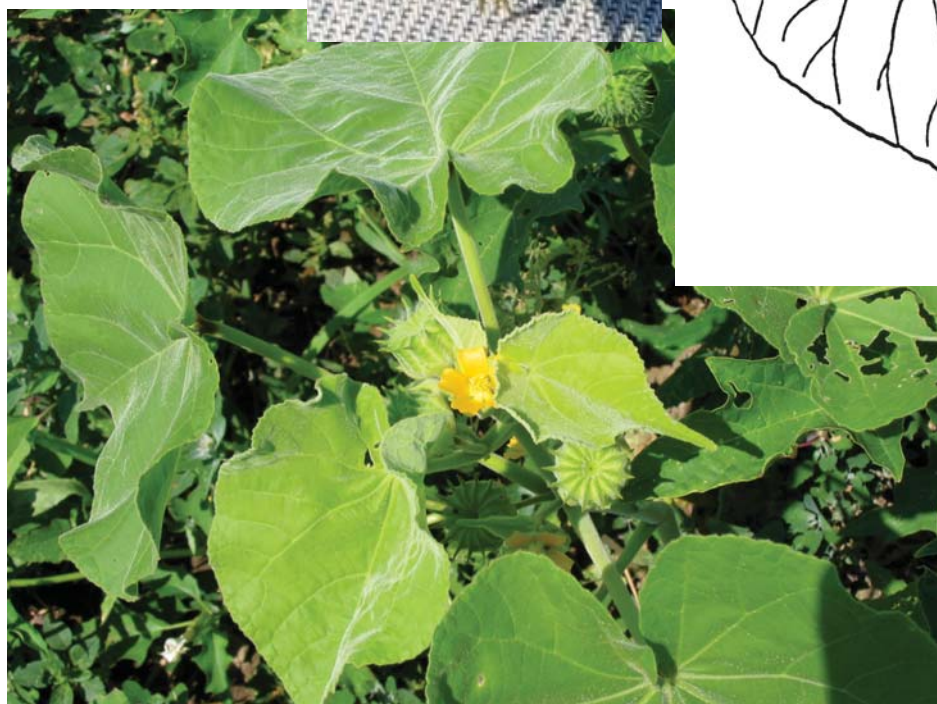
**Identifying characteristics:** Leaves large, heart shaped, soft-hairy, toothed margins, long petioles; stems unbranched, hairy; flowers yellow, 5 petals, cup shaped seed disk.

**Similar species:** common mallow

**Abundance in the Northeast:** Velvetleaf was found on 16% of the farms sampled and 8% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 136: Velvetleaf



## Musk mallow

*Malva moschata* L. (MAMO2)

**Species description:** Musk mallow is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, deeply-divided into narrow segments; flowers 1.5-2" wide, white or pink, petals indented at tip.

**Similar species:** Common mallow; Venice mallow.

**Abundance in the Northeast:** Musk mallow was found on 25% of the farms sampled and 8% of the pastures. Its average cover was 0.5% where present (range 0.2 - 1.4%).



Illustration 137: Musk mallow





## Common mallow

*Malva neglecta* Wallr. (MANE)

**Species description:** Common mallow is an introduced annual, biennial or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves round, alternate, palmately veined, toothed margins, short hairs; stems hairy; flowers 5 petals, white to lavender, on stalks, fruit resemble button.

**Similar species:** Musk mallow

**Abundance in the Northeast:** Common mallow was found on 18% of the farms sampled and 12% of the pastures. Its average cover was 0.3% where present (range 0.2 - 0.3%).



Illustration 138: Common mallow



## Carpet weed

*Mollugo verticillata* L. (MOVE)

**Species description:** Carpet weed is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves in whorls, 3-8 at each stem node, smooth, 1-3 cm long; stems smooth, very branched forming mat; flowers 2-5 in leaf axis, small, white to green.

**Similar species:** prostrate knotweed; bedstraw; stitchwort

**Abundance in the Northeast:** Carpet weed was found on 20% of the farms sampled and 9% of the pastures. Its average cover was 0.9% where present (range 0.1 - 3.5%).



Illustration 139: Carpet weed



## Evening primrose

*Oenothera biennis* L. (OEBI)

**Species description:** Evening primrose is a native biennial forb. It is not usually described as a forage species.

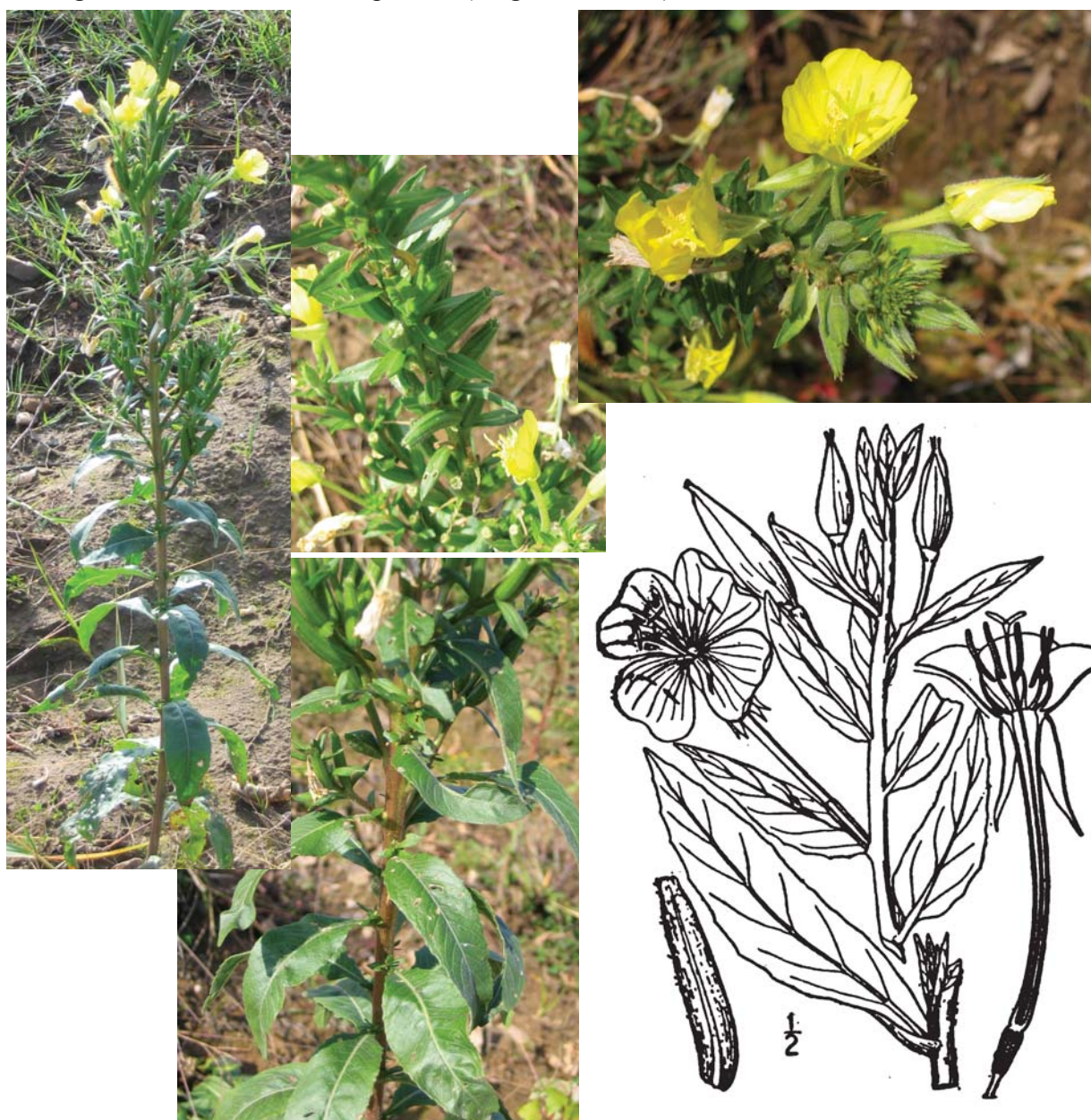
**Identifying characteristics:** Erect growth habit; leaves alternate, entire (unlobed) margins, slightly toothed; flowers yellow, four broad petals, indented at tip, 1-2" wide.

**Similar species:** cutleaf primrose

**Abundance in the Northeast:** Evening primrose was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0.4% where present (range 0.2 - 0.5%).



Illustration 140: Evening primrose



## Yellow wood sorrel

*Oxalis stricta* L. (OXST)

**Species description:** Yellow wood sorrel is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves clover like, alternate, long petioles, 3 heart shaped leaflets, smooth; stems hairy, erect; flowers yellow, five-petals, on long stalks,

**Similar species:** clovers

**Abundance in the Northeast:** Yellow wood sorrel was found on 91% of the farms sampled and 68% of the pastures. Its average cover was 0.5% where present (range 0.1 - 4.2%).



Illustration 141: Yellow wood sorrel



## Pokeweed

*Phytolacca americana* L. (PHAM4)

**Species description:** Pokeweed is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Large tree-like perennial; leaves alternate, egg shaped, entire, reddish; stems smooth, red, branched above; fruit berries, purple to black, red juice.

**Similar species:** Japanese knotweed.

**Abundance in the Northeast:** Pokeweed was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 142: Pokeweed



## English or narrow plantain

*Plantago lanceolata* L. (PLLA)

**Species description:** English plantain is an introduced annual, biennial or perennial forb. It is not usually described as a forage species.

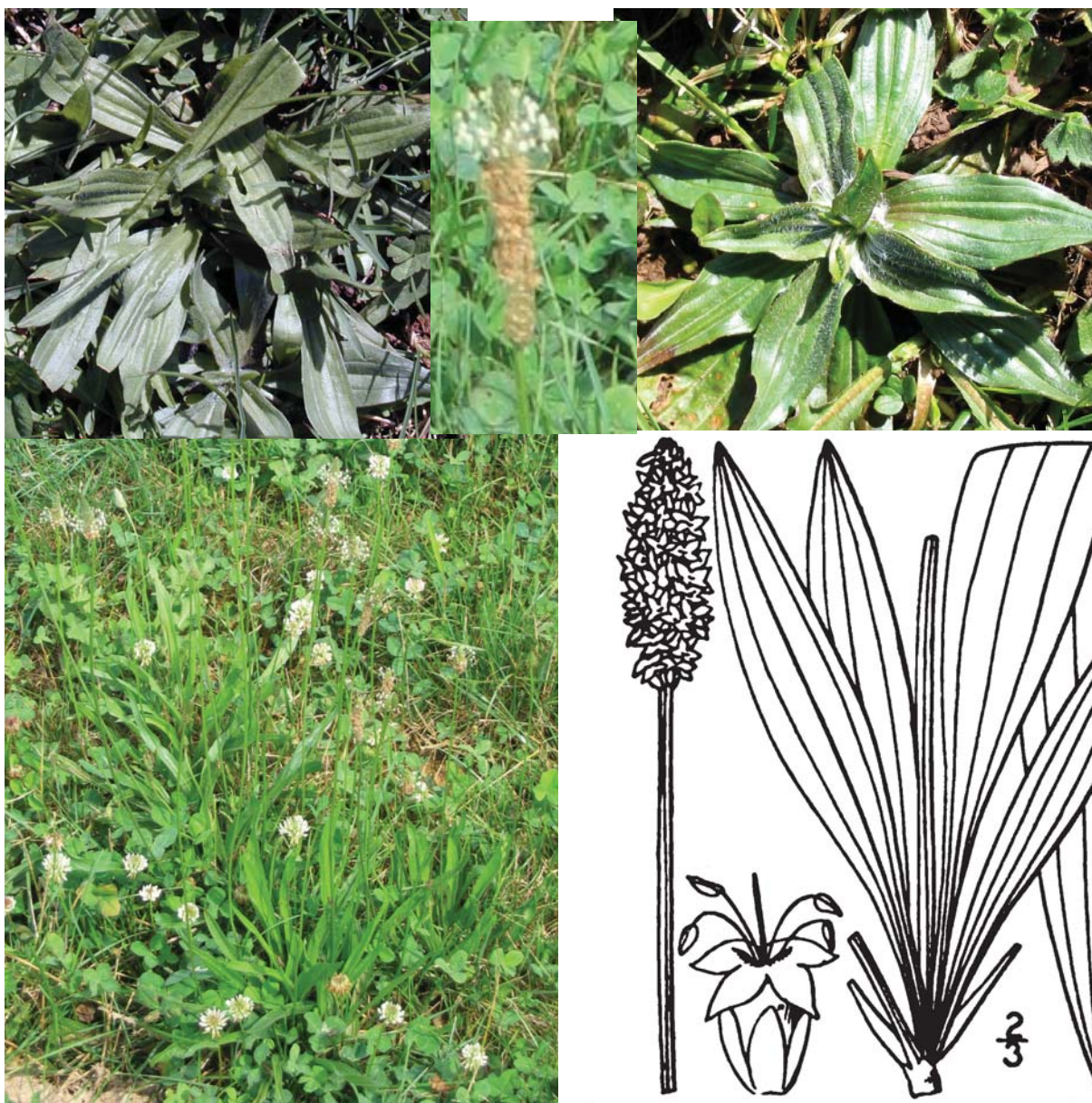
**Identifying characteristics:** Leaves narrow, often twisting, remain in rosette, parallel veins, long silky hairs; flowers at tip of stalk;

**Similar species:** Common plantain.

**Abundance in the Northeast:** English plantain was found on 75% of the farms sampled and 71% of the pastures. Its average cover was 2.2% where present (range 0.1 - 11.7%).



Illustration 143: English plantain



## Common or broadleaf plantain

*Plantago major* L. (PLMA2)

**Species description:** Common plantain is a native perennial forb. It is not usually described as a forage species.

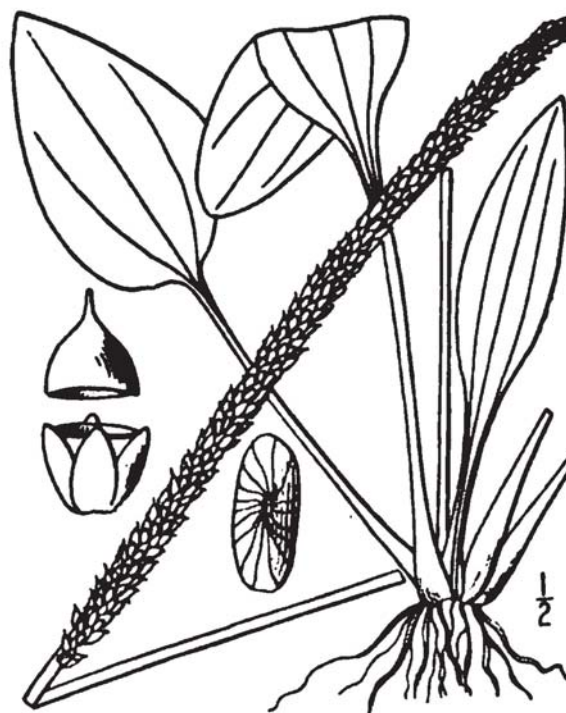
**Identifying characteristics:** Leaves broad oval, smooth, remain in rosette, parallel veins, petiole reddish at base; flowers along entire length of stalk.

**Similar species:** English plantain.

**Abundance in the Northeast:** Common plantain was found on 98% of the farms sampled and 90% of the pastures. Its average cover was 4.4% where present (range 0.1 - 49.5%).



Illustration 144: Common plantain



## Prostrate knotweed

*Polygonum aviculare* L. (POAV)

**Species description:** Prostrate knotweed is an introduced annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Spreads along ground; leaves alternate, elliptic, sheath where leaf meets stem; stems swollen at node; flowers white, axillary clusters.

**Similar species:** Smartweeds.

**Abundance in the Northeast:** Prostrate knotweed was found on 61% of the farms sampled and 47% of the pastures. Its average cover was 1.3% where present (range 0.1 - 12.4%).



Illustration 145:  
Prostrate knotweed





## Black bindweed

*Polygonum convolvulus* L. (POCO10)

**Species description:** Black bindweed is an introduced annual vine. It is not usually described as a forage species.

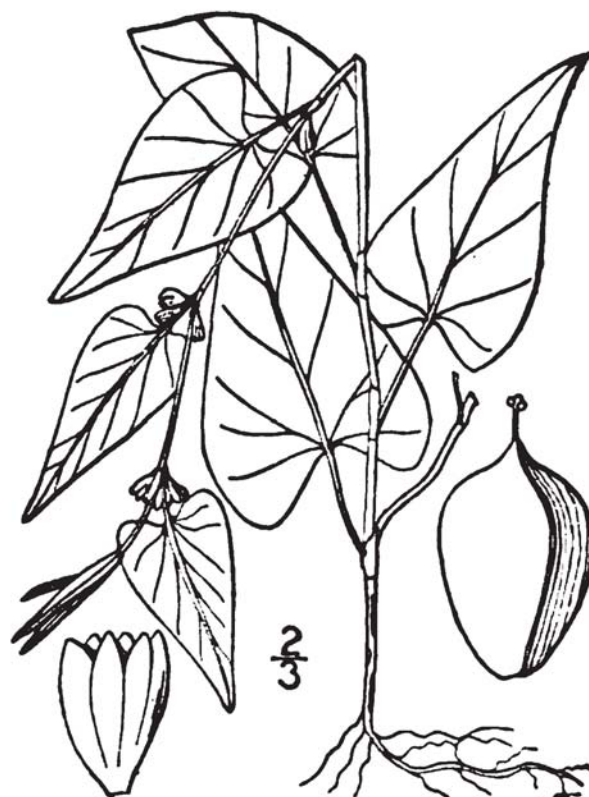
**Identifying characteristics:** Viny, leaves smooth, alternate, triangular, basal lobes point toward plant, sheath where leaf meets stem; flowers white, racemes, axillary; seeds winged.

**Similar species:** Hedge bindweed; field bindweed

**Abundance in the Northeast:** Black bindweed was found on 14% of the farms sampled and 5% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.6%).



Illustration 146:  
Black bindweed



## Erect knotweed

*Polygonum erectum* L. (POER2)

**Species description:** Erect knotweed is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, entire, yellow-green, sheath where leaf meets stem; flowers in axils, white; not creeping.

**Similar species:** Prostrate knotweed; smartweeds.

**Abundance in the Northeast:** Erect knotweed was found on 14% of the farms sampled and 10% of the pastures. Its average cover was 0.3% where present (range 0.1 - 1.2%).



Illustration 147:  
Erect knotweed



## Dockleaf smartweed

*Polygonum lapathifolium* L. (POLA4)

**Species description:** Dockleaf smartweed is a native annual forb. It is not usually described as a forage species.

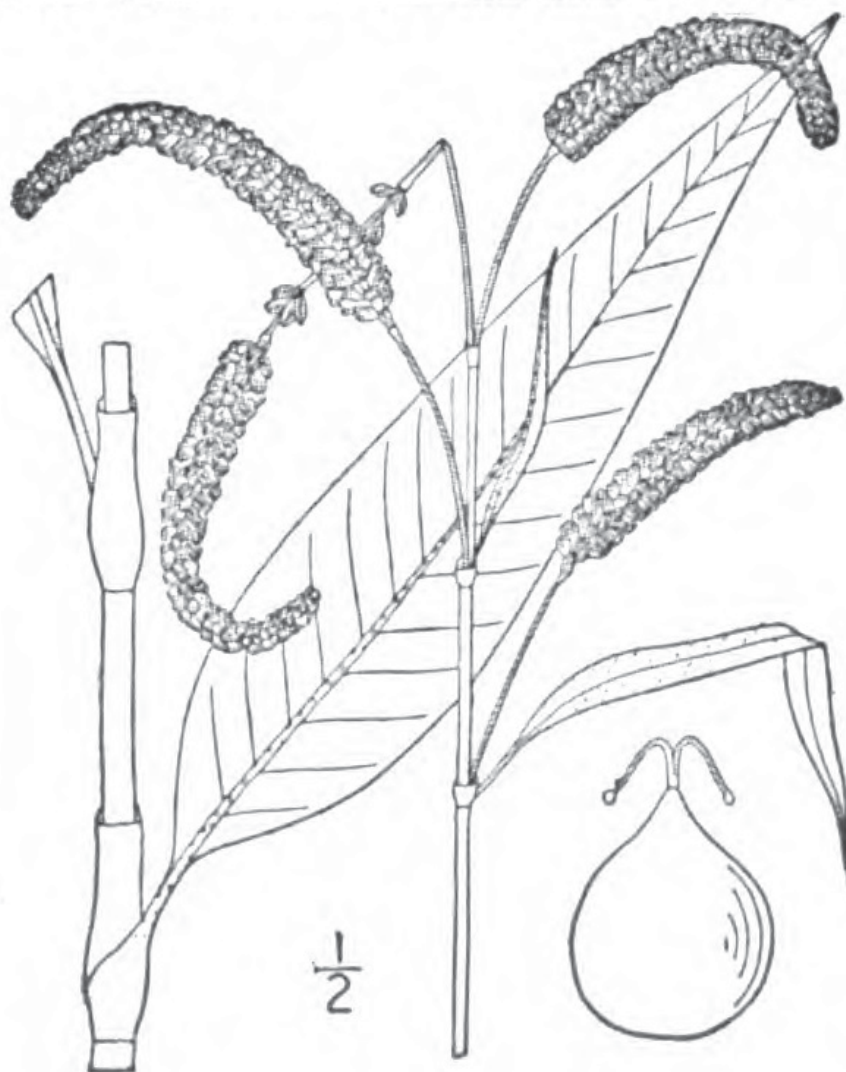
**Identifying characteristics:** Leaves alternate, entire, narrow, smooth, sheath with no fringe where leaf meets stem; stems smooth, wiry; flowers pink in nodding spikes.

**Similar species:** other smartweeds.

**Abundance in the Northeast:** Dockleaf smartweed was found on 18% of the farms sampled and 13% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1.4%).



Illustration 148:  
Dockleaf smartweed



## Pennsylvania smartweed

*Polygonum pensylvanicum* L. (POPE2)

**Species description:** Pennsylvania smartweed is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, smooth, elliptic; stems reddish, swollen and jointed at nodes, short hairs on upper stems, sheath with no fringe where leaf meets stem; flowers pink, in erect spikes.

**Similar species:** Spotted ladythumb; dockleaf smartweed.

**Abundance in the Northeast:** Pennsylvania smartweed was found on 59% of the farms sampled and 40% of the pastures. Its average cover was 1.1% where present (range 0.1 - 12.7%).



Illustration 149 :  
Pennsylvania smartweed



## Spotted ladysthumb

*Polygonum persicaria* L. (POPE3)

**Species description:** Spotted ladysthumb is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, elliptic, smooth, sheath and long fringe where leaf meets stem, often purple blotch in center; stems swollen at nodes, smooth, reddish; flowers pink in erect spikes.

**Similar species:** Pennsylvania smartweed; dockleaf smartweed.

**Abundance in the Northeast:** Spotted ladysthumb was found on 16% of the farms sampled and 16% of the pastures. Its average cover was 1.2% where present (range 0.1 - 6.1%).



Illustration 150:  
Spotted ladysthumb



## Red sorrel

*Rumex acetosella* L. (RUAC3)

**Species description:** Red sorrel is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves mostly basal, arrowhead shaped, petiolated, sparsely alternate on stem, papery sheath at leaf node; flowers panicles reddish; sour taste.

**Similar species:** unique leaf shape

**Abundance in the Northeast:** Red sorrel was found on 27% of the farms sampled and 16% of the pastures. Its average cover was 0.6% where present (range 0.1 - 2.3%).



Illustration 151: Red sorrel



## Curly dock

*Rumex crispus* L. (RUCR)

**Species description:** Curly dock is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves basal, narrow, wavy margins, shiny, reddish; stems smooth, ridged, reddish, sheath at node; flowers clustered upper portions of stem, greenish.

**Similar species:** broadleaf dock.

**Abundance in the Northeast:** Curly dock was found on 84% of the farms sampled and 70% of the pastures. Its average cover was 2% where present (range 0.1 - 31%).



Illustration 152: Curly dock



## Broadleaf or bitter dock

*Rumex obtusifolius* L. (RUOB)

**Species description:** Broadleaf or bitter dock is an introduced perennial forb. It is not usually described as a forage species.

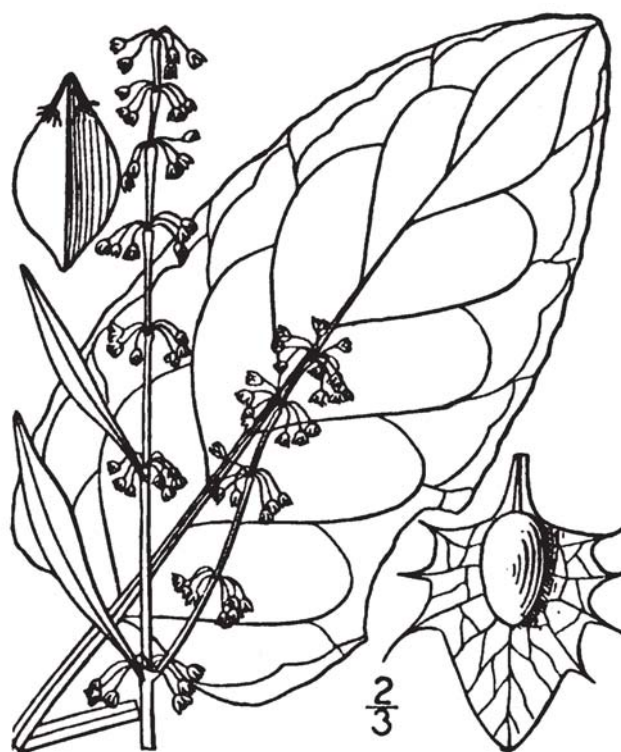
**Identifying characteristics:** Leaves alternate large, less wavy, heart shaped, smooth, red veined, mostly basal; flowers stalked, greenish,

**Similar species:** Curly dock

**Abundance in the Northeast:** Broadleaf dock was found on 50% of the farms sampled and 37% of the pastures. Its average cover was 1.6% where present (range 0.1 - 8.3%).



Illustration 153: Broadleaf dock





## Purslane

*Portulaca oleracea* L. (POOL)

**Species description:** Purslane is a native annual forb. It is not usually described as a forage species.

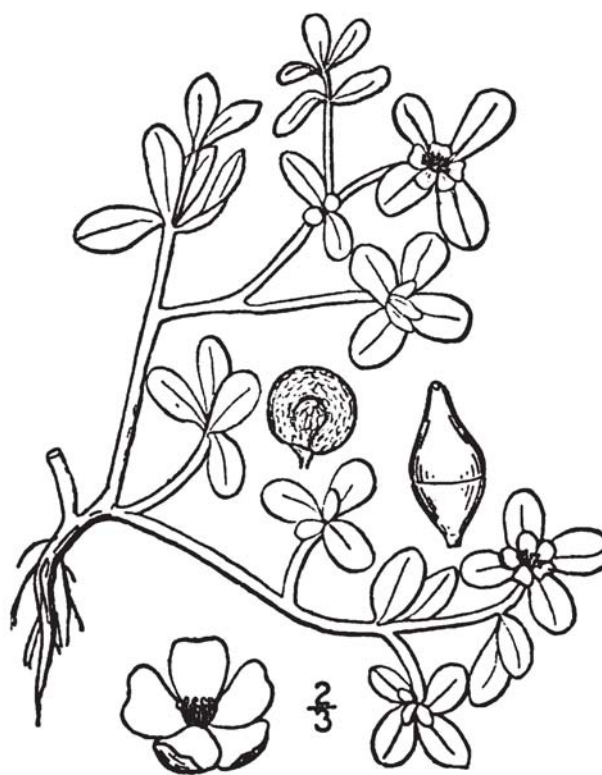
**Identifying characteristics:** Prostrate; leaves thick and fleshy, opposite or alternate, smooth, spatulate, no petioles, no sheath; stems, smooth, red; flowers yellow, clustered at end of stem.

**Similar species:** spurge; prostrate knotweed

**Abundance in the Northeast:** Purslane was found on 18% of the farms sampled and 11% of the pastures. Its average cover was 0.2% where present (range 0.1 – 0.4%).



Illustration 154: Purslane



## Scarlet pimpernel

*Anagallis arvensis* L. (ANAR)

**Species description:** Scarlet pimpernel is an introduced annual or biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, egg shaped, sometimes whorls of 3; stems smooth, square; flowers bell shaped, leaf axils, long nodding stalks, salmon to red.

**Similar species:** common shickweed

**Abundance in the Northeast:** Scarlet pimpernel was found on 11% of the farms sampled and 6% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1.8%).



Illustration 155: Scarlet pimpernel



## Money wort

*Lysimachia nummularia* L. (LYNU)

**Species description:** Money wort is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves smooth, dots on surface, opposite, square to round, pointed tip; stems root at nodes; flowers bright yellow, stalked in axils.

**Similar species:** thymeleaf speedwell; common chickweed.

**Abundance in the Northeast:** Money wort was found on 16% of the farms sampled and 7% of the pastures. Its average cover was 0.7% where present (range 0.2 - 1.4%).

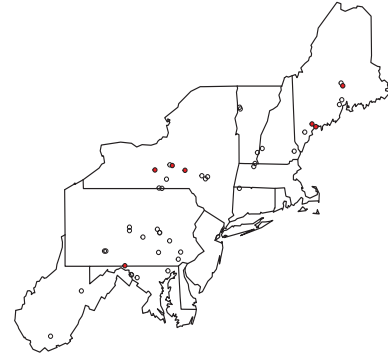


Illustration 156: Scarlet pimpernel



## Tall buttercup

*Ranunculus acris* L. (RAAC3)

**Species description:** Tall buttercup is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, divided into 3-7 deeply cleft parts, all stalkless; Stems erect, hairy; flowers yellow, long stalks, spreading sepals.

**Similar species:** other buttercups; cinquefoils; strawberry

**Abundance in the Northeast:** Tall buttercup was found on 75% of the farms sampled and 59% of the pastures. Its average cover was 1.9% where present (range 0.1 - 13.5%).



Illustration 157: Tall buttercup



## Wild strawberry

*Fragaria virginiana* Duchesne (FRVI)

**Species description:** Wild strawberry is a native perennial forb. It is not usually described as a forage species.

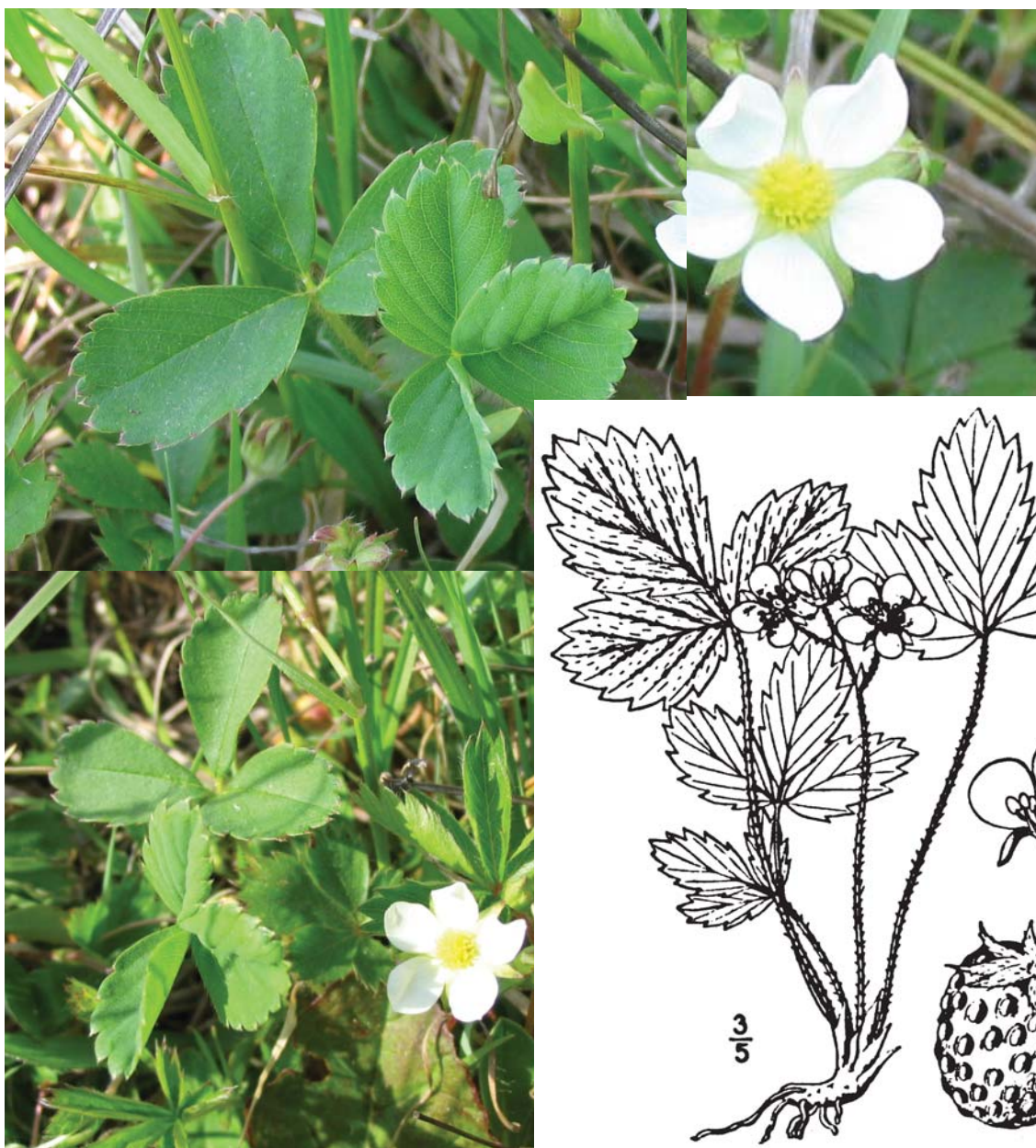
**Identifying characteristics:** Leaves basal, trifoliate, long hairy petioles, nearly smooth, toothed margins; Flowers 5 white petals, yellow stamens, 2cm wide; fruit small red strawberries.

**Similar species:** Indian strawberry; oldfield rough cinquefoil.

**Abundance in the Northeast:** Wild strawberry was found on 41% of the farms sampled and 23% of the pastures. Its average cover was 1.4% where present (range 0.1 - 5.8%).



Illustration 158: Wild strawberry



## Avens

*Geum sp.* (GEUM)

**Species description:** Avens is a native perennial forb. It is not usually described as a forage species.

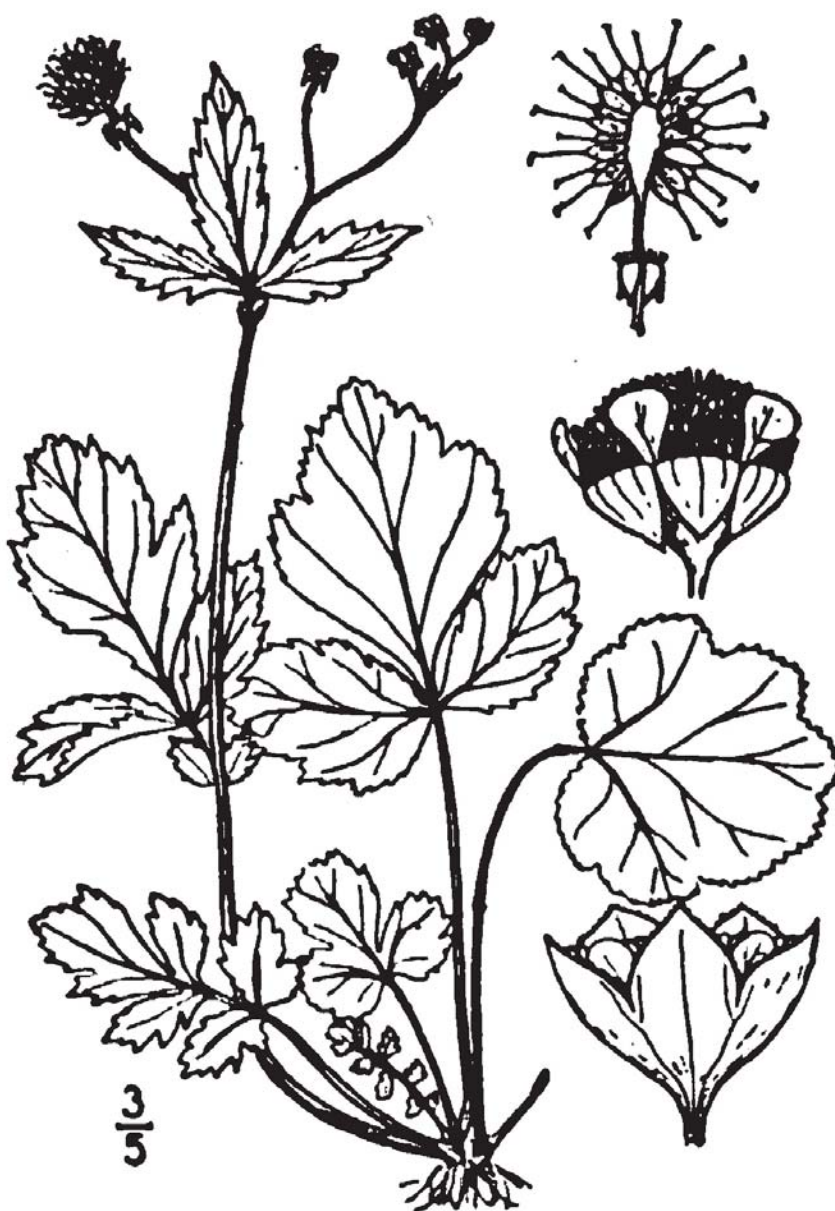
**Identifying characteristics:** Leaves alternate, pinnately divided, basal leaves with large terminal leaflets, and several smaller ones; flowers branched cluster, yellow, 1/2-1" wide.

**Similar species:** strawberries; cinquefoils; buttercups.

**Abundance in the Northeast:** Avens was found on 9% of the farms sampled and 6% of the pastures. Its average cover was 0.4% where present (range 0.2 - 0.6%).



Illustration 159: Avens



## Silver cinquefoil

*Argentina anserina* (L.) Rydb. (ARAN7)

**Species description:** Silver cinquefoil is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, palmately compound, 5-7 leaflets, silvery beneath, margins toothed, hairy; stems hairy to smooth, flowers yellow, 7 to 10 mm wide.

**Similar species:** Other cinquefoils; buttercups.

**Abundance in the Northeast:** Silver cinquefoil was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 0.6% where present (range 0.2 - 1.1%).



Illustration 160: Silver cinquefoil



## Old field or rough cinquefoil

*Potentilla norvegica* L. (PONO3)

**Species description:** Old field cinquefoil is a native annual, biennial or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, palmately compound, 3 leaflets, dark green shiny above, hairy to wooly beneath; stems hairy; flowers yellow, 5 petals, leaf axils.

**Similar species:** Other cinquefoils; strawberries.

**Abundance in the Northeast:** Old field cinquefoil was found on 20% of the farms sampled and 10% of the pastures. Its average cover was 0.8% where present (range 0.1 - 1.8%).



Illustration 161: Old field cinquefoil





## Sulphur cinquefoil

*Potentilla recta* L. (PORE5)

**Species description:** Sulphur cinquefoil is an introduced perennial forb. It is not usually described as a forage species.

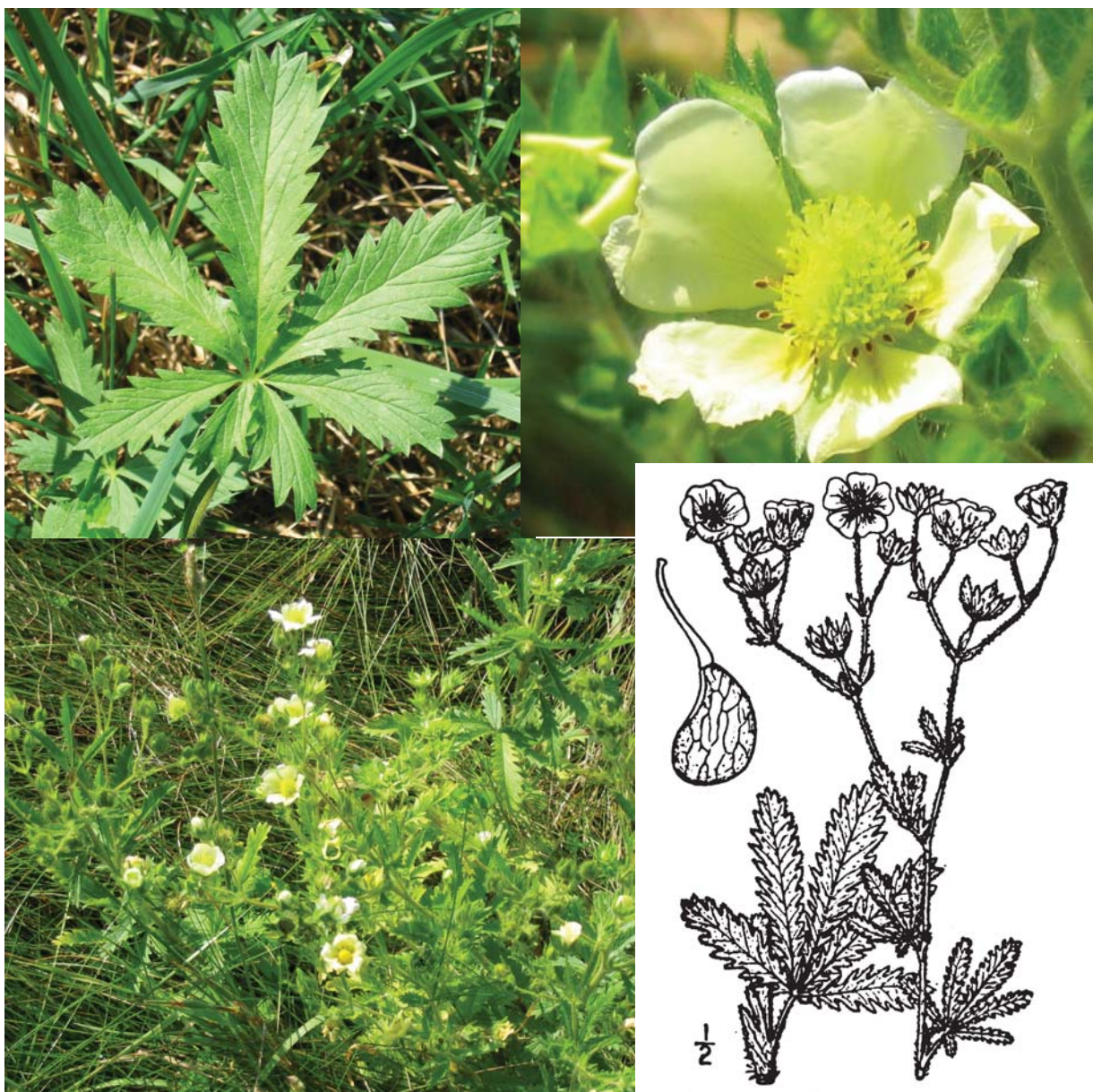
**Identifying characteristics:** Robust plant; leaves alternate, palmately compound, 5-7 leaflets, long hairs, coarsely toothed; stems unbranched, hairy; flowers pale yellow.

**Similar species:** Other cinquefoils; buttercup.

**Abundance in the Northeast:** Sulphur cinquefoil was found on 11% of the farms sampled and 6% of the pastures. Its average cover was 0.8% where present (range 0.1 - 2%).



Illustration 162: Sulphur cinquefoil



## Common cinquefoil

*Potentilla simplex* Michx. (POS12)

**Species description:** Common cinquefoil is a native perennial forb. It is not usually described as a forage species.

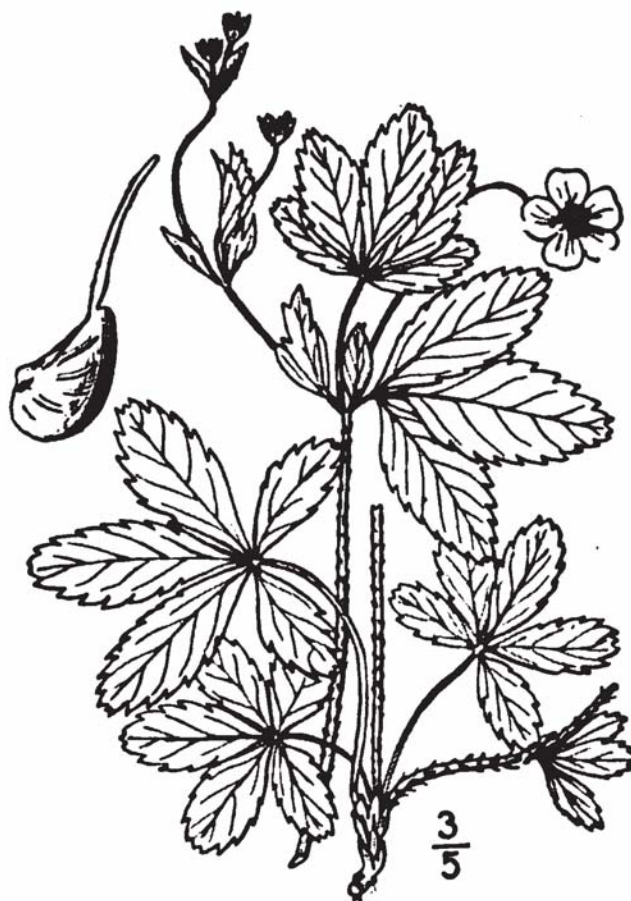
**Identifying characteristics:** Leaves alternate, palmately divided, 5 leaflets, toothed margins, mostly smooth; stems viny, reddish; flowers yellow on long stalks from axils.

**Similar species:** Other cinquefoils; strawberries.

**Abundance in the Northeast:** Common cinquefoil was found on 27% of the farms sampled and 23% of the pastures. Its average cover was 1.7% where present (range 0.1 - 9.6%).



Illustration 163: Common cinquefoil



## Bedstraw

*Galium mollugo* L. (GAMO)

**Species description:** Bedstraw is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves in whorls of 7 or 8, 1/2-1.5" long; stems square; flowers very small, branching clusters

**Similar species:** other bedstraws

**Abundance in the Northeast:** Bedstraw was found on 30% of the farms sampled and 25% of the pastures. Its average cover was 4.4% where present (range 0.1 - 25%).



Illustration 164: Bedstraw



## Butter and eggs; yellow toadflax

*Linaria vulgaris* P. Mill. (LIVU2)

**Species description:** Yellow toadflax is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, pale green, sessile, linear, 2-6 cm long, entire margins, numerous appear whorled; stems smooth; flowers yellow, snapdragon like.

**Similar species:** lobelia; orchids.

**Abundance in the Northeast:** Butter and eggs; yellow toadflax was found on 20% of the farms sampled and 9% of the pastures. Its average cover was 0.4% where present (range 0.1 - 0.7%).



Illustration 165: Butter and eggs; yellow toadflax



## Moth mullein

*Verbascum blattaria* L. (VEBL)

**Species description:** Moth mullein is an introduced biennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, smooth, crinkled green, toothed margin, short petioles; Flowers 4 petals, white to yellow with purple hairs on stamens.

**Similar species:** common mullein is very fuzzy

**Abundance in the Northeast:** Moth mullein was found on 16% of the farms sampled and 8% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1.2%).



Illustration 166: Moth mullein



## Common mullein

*Verbascum thapsus* L. (VETH)

**Species description:** Common mullein is an introduced biennial forb. It is not usually described as a forage species.

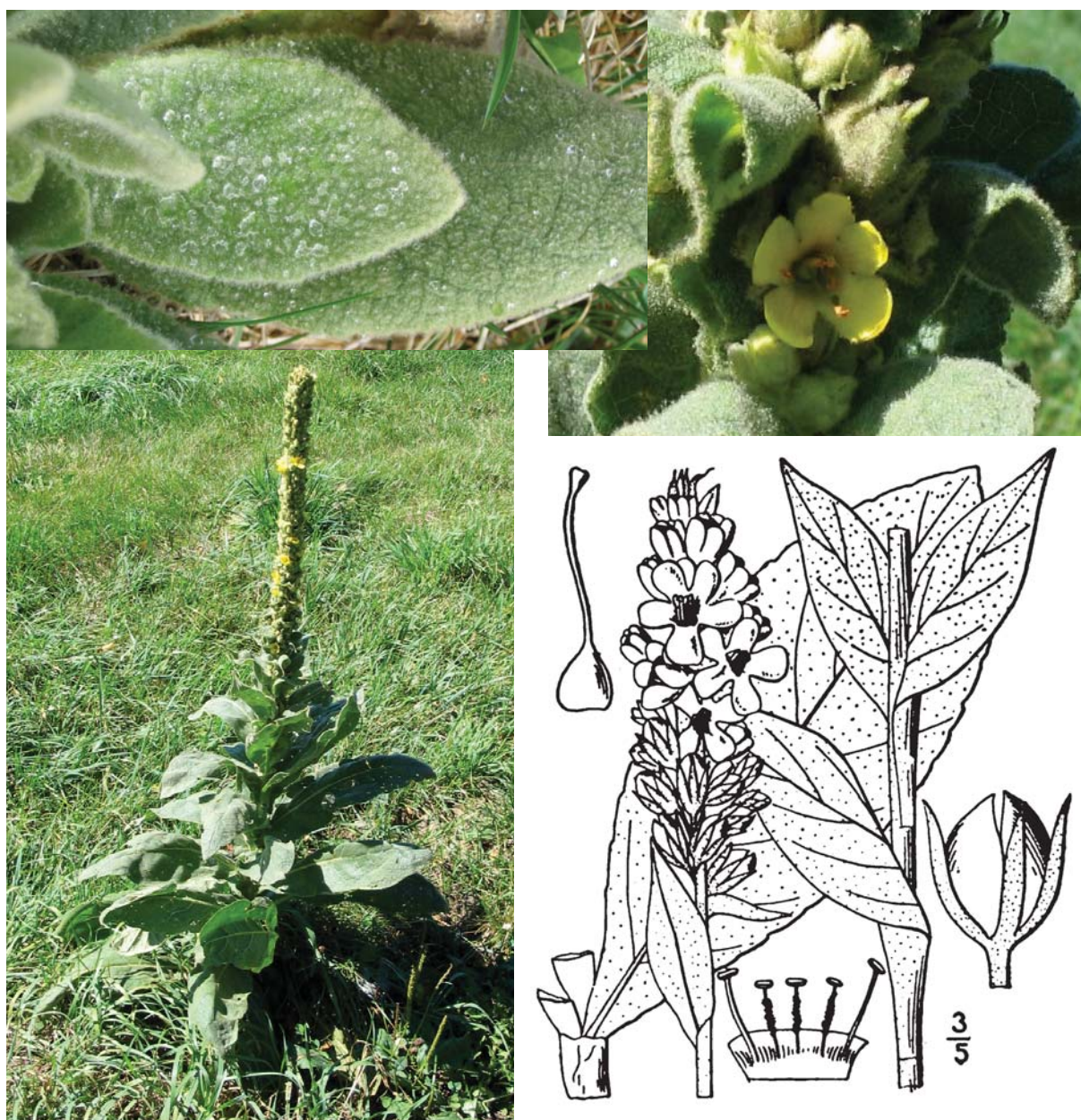
**Identifying characteristics:** Leaves oblong and densely hairy in basal rosette, alternate and woolly on stem; flowers yellow, fused petals, on a spike.

**Similar species:** moth mullein

**Abundance in the Northeast:** Common mullein was found on 9% of the farms sampled and 4% of the pastures. Its average cover was 0% where present (range 0 - 0%).



Illustration 167: Common mullein



## Corn speedwell

*Veronica arvensis* L. (VEAR)

**Species description:** Corn speedwell is an introduced annual forb. It is not usually described as a forage species.

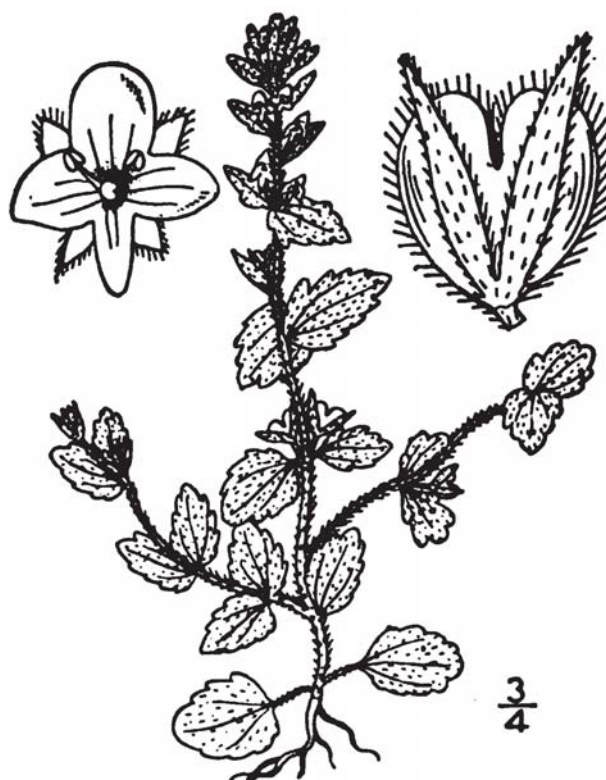
**Identifying characteristics:** Leaves hairy, opposite at bottom, alternate on stem, petiolated, egg shaped, rounded teeth on margin; flowers single tiny blue flowers without stalks in axils.

**Similar species:** Other speedwells.

**Abundance in the Northeast:** Corn speedwell was found on 7% of the farms sampled and 4% of the pastures. Its average cover was 0.5% where present (range 0.2 - 1.1%).



Illustration 168: Corn speedwell



## Germander speedwell

*Veronica chamaedrys* L. (VECH)

**Species description:** Germander speedwell is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves hairy, opposite, egg shaped, coarsely toothed; flowers blue, clustered on stalks; larger flowers than common speedwell (1/2" wide).

**Similar species:** Other speedwells, especially common.

**Abundance in the Northeast:** Germander speedwell was found on 20% of the farms sampled and 18% of the pastures. Its average cover was 3.5% where present (range 0.1 - 13.8%).



Illustration 169: Germander speedwell





## Common speedwell

*Veronica o icinalis* L. (VEOF2)

**Species description:** Common speedwell is a native perennial forb. It is not usually described as a forage species.

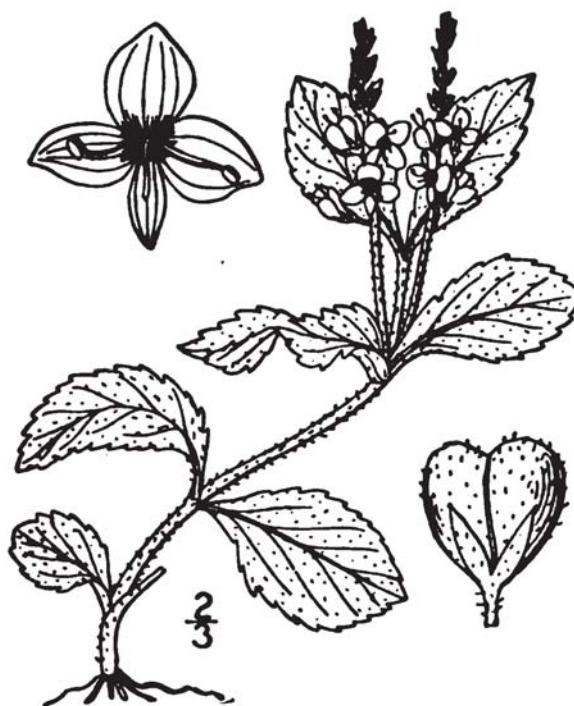
**Identifying characteristics:** Leaves hairy, opposite, elliptical, 1-2" long, sharply toothed; flowers blue, clustered on stalks; smaller flowers than germander speedwell (1/4" wide).

**Similar species:** Other speedwells, especially germander.

**Abundance in the Northeast:** Common speedwell was found on 41% of the farms sampled and 22% of the pastures. Its average cover was 0.6% where present (range 0.1 - 4.5%).



Illustration 170: Common speedwell



## Purslane speedwell or neckweed

*Veronica peregrina* L. (VEPE2)

**Species description:** Purslane speedwell is a native annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves smooth, opposite at bottom, alternate on stem, obscurely toothed; stem erect; flowers single tiny whitish flowers without stalks in axils.

**Similar species:** Other speedwells, especially thymeleaf.

**Abundance in the Northeast:** Purslane speedwell was found on 5% of the farms sampled and 2% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 171: Purslane speedwell



## Persian or birdeye speedwell

*Veronica persica* Poir. (VEPE3)

**Species description:** Persian speedwell is a native annual forb. It is not usually described as a forage species.

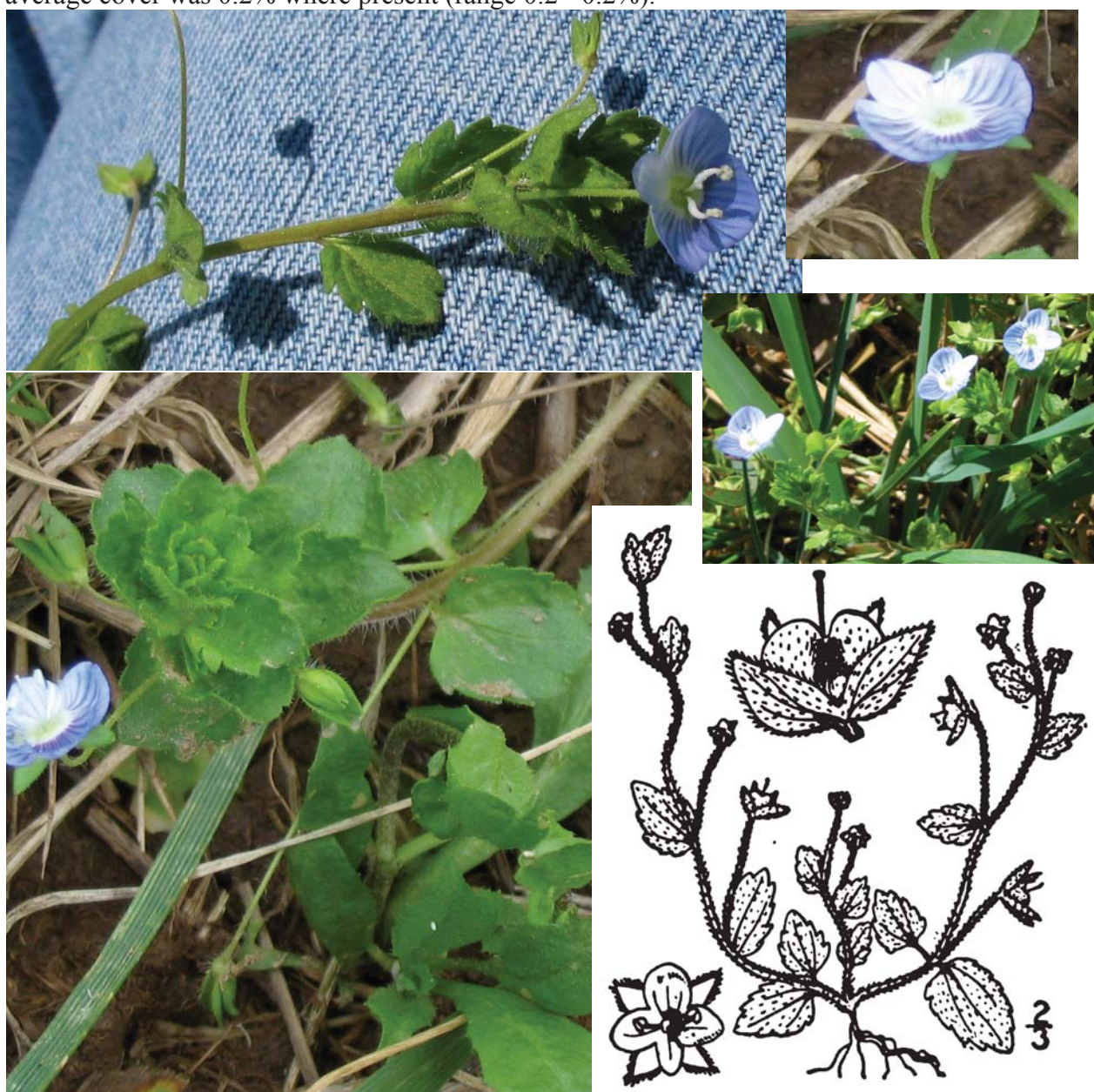
**Identifying characteristics:** Leaves smooth, opposite at bottom, alternate on stem, petiolated, heart shaped, coarse teeth; flowers single blue flowers on long stalks in axils.

**Similar species:** Other speedwells especially corn speedwell

**Abundance in the Northeast:** Persian speedwell was found on 7% of the farms sampled and 3% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).



Illustration 172:  
Persian speedwell



## Thymeleaf speedwell

*Veronica serpyllifolia* L. (VESE)

**Species description:** Thymeleaf speedwell is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves small opposite, obscurely toothed, smooth, egg shaped; flowers single pale whitish flowers with dark stripes, on stalks in axils

**Similar species:** Other speedwells, especially purslane.

**Abundance in the Northeast:** Thymeleaf speedwell was found on 45% of the farms sampled and 27% of the pastures. Its average cover was 0.4% where present (range 0.1 - 1.3%).



Illustration 173: Thymeleaf speedwell



## Jimson weed

*Datura stramonium* L. (DAST)

**Species description:** Jimson weed is an introduced annual forb. It is not usually described as a forage species.

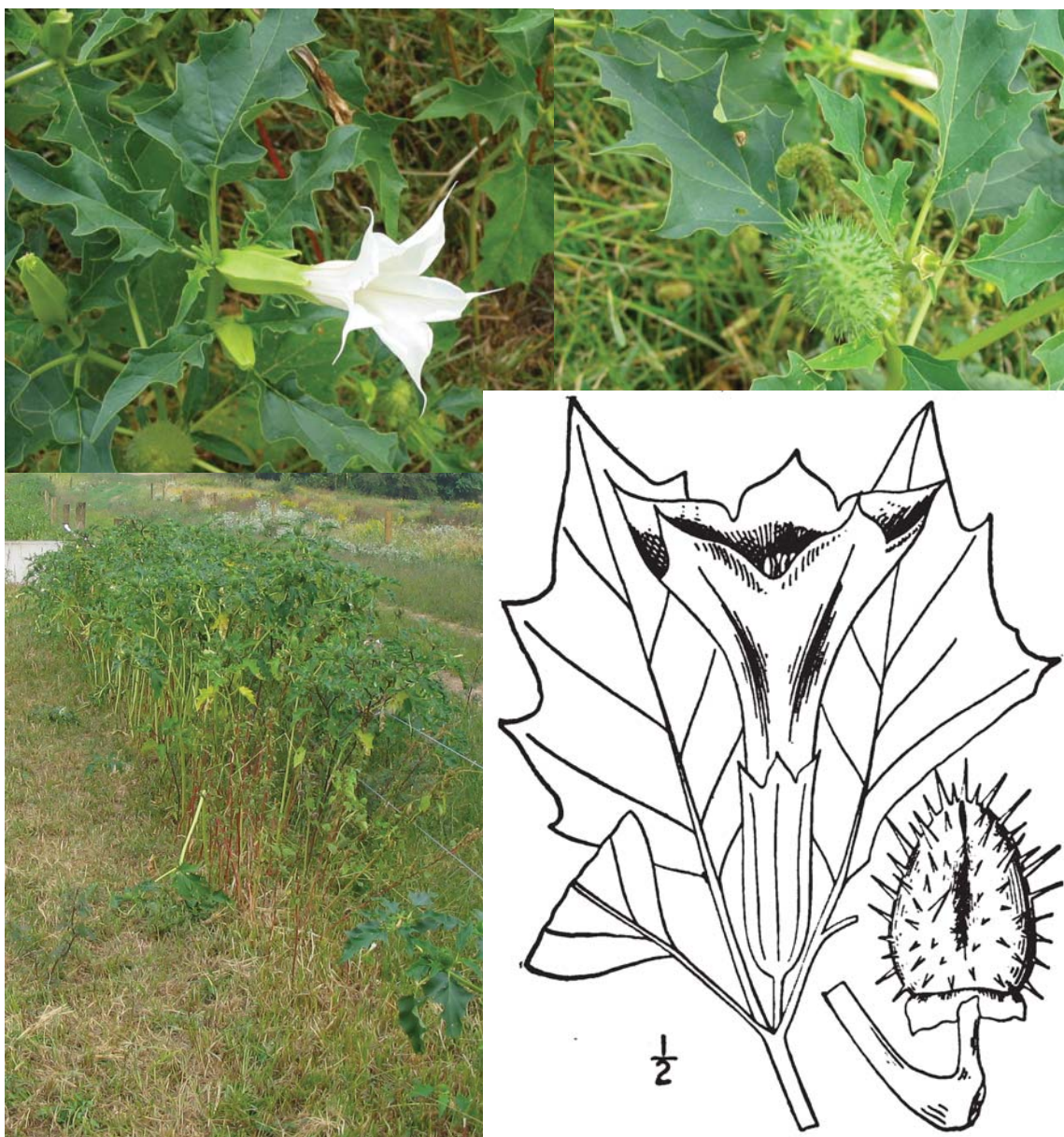
**Identifying characteristics:** Leaves spiny, alternate, large, smooth, dark green, resemble oak leaf; stems are purple; flowers white trumpet-shaped; fruit spiny; POISONOUS.

**Similar species:** horesenttle; nightshade; groundcherry.

**Abundance in the Northeast:** Jimson weed was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 174: Jimson weed



## Clammy groundcherry

*Physalis heterophylla* Nees (PHHE5)

**Species description:** Clammy groundcherry is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, ovate or heart shaped, pointed at tip, coarsely toothed; stems covered with sticky hairs; flowers yellow, purple center; Inflated fruit husk.

**Similar species:** smooth ground cherry; horsenettle.

**Abundance in the Northeast:** Clammy groundcherry was found on 20% of the farms sampled and 12% of the pastures. Its average cover was 0.5% where present (range 0.1 - 1%).



Illustration 175: Clammy groundcherry



## Horsenettle

*Solanum carolinense* L. (SOCA3)

**Species description:** Horsenettle is a native perennial forb.

It is not usually described as a forage species.

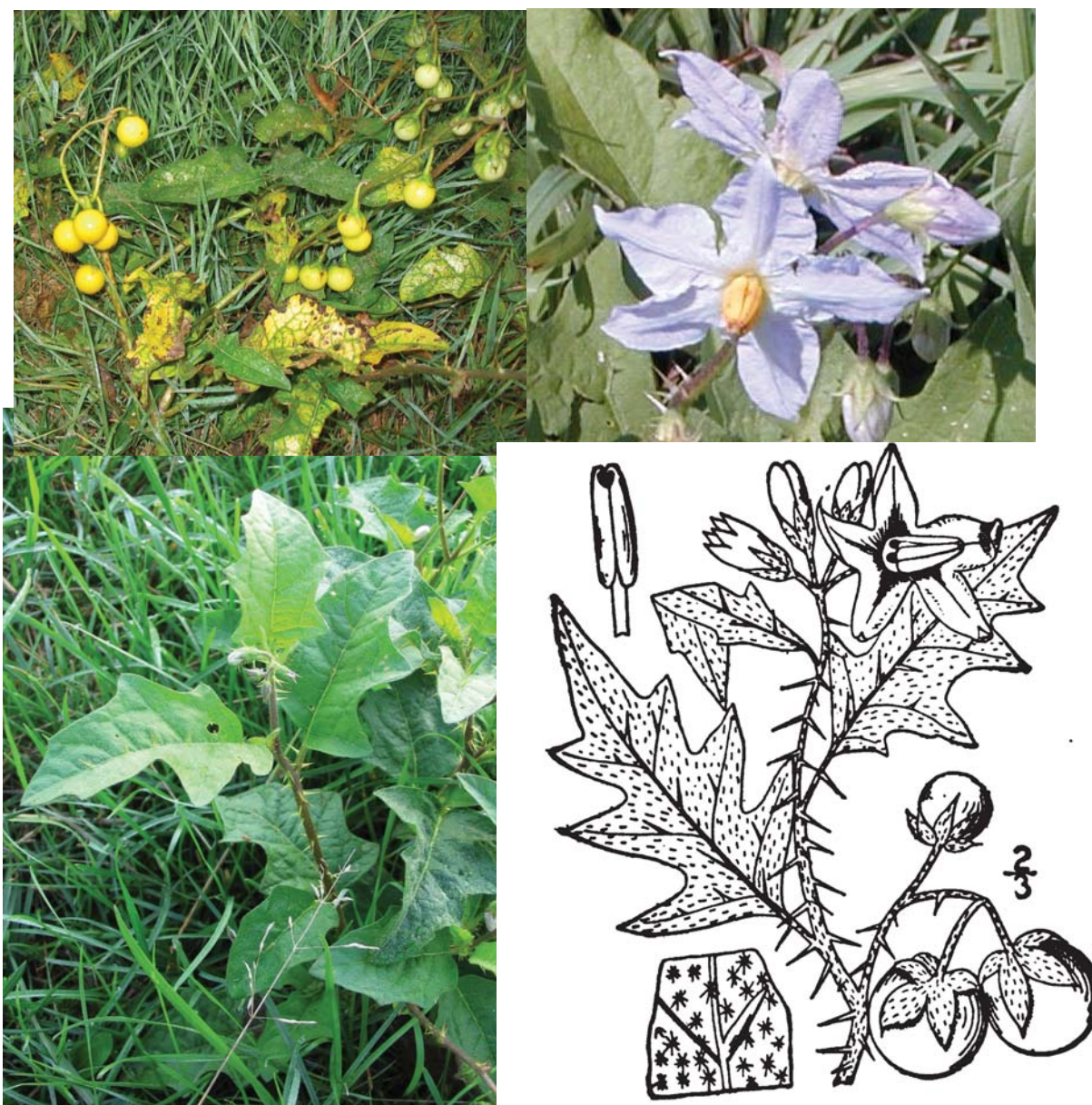
**Identifying characteristics:** Leaves alternate, egg-shaped, 2-5 shallow lobes, hairs on both surfaces; Spines on leaves and stem; flowers 5 fused white to violet petals, yellow anthers; yellow berries

**Similar species:** groundcherries; Jimson weed.

**Abundance in the Northeast:** Horsenettle was found on 32% of the farms sampled and 31% of the pastures. Its average cover was 2% where present (range 0.1 - 26.5%).



Illustration 176: Horsenettle



## Black nightshade

*Solanum nigrum* L. (SONI)

**Species description:** Black nightshade is an introduced annual or perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, hairy, triangular, margins entire to wavy toothed; stems hairy; flowers white, drooping, along branches, star shaped; black tomato-like berries

**Similar species:** horsenettle; groundcherries.

**Abundance in the Northeast:** Black nightshade was found on 20% of the farms sampled and 13% of the pastures. Its average cover was 0.1% where present (range 0.1 – 0.1%).



Illustration 177:  
Black nightshade





## Nettle

*Urtica dioica* L. (URDI)

**Species description:** Nettle is an introduced perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, ovate, margins deeply toothed, stinging hairs on lower surface; stems square, stinging hairs; flowers green, branched clusters in leaf axils.

**Similar species:** vervains; boneset.

**Abundance in the Northeast:** Nettle was found on 11% of the farms sampled and 5% of the pastures. Its average cover was 0.4% where present (range 0.4 - 0.4%).



Illustration 178: Nettle



## Hoary vervain

*Verbena stricta* Vent. (VEST)

**Species description:** Hoary vervain is a native annual or perennial forb. It is not usually described as a forage species.

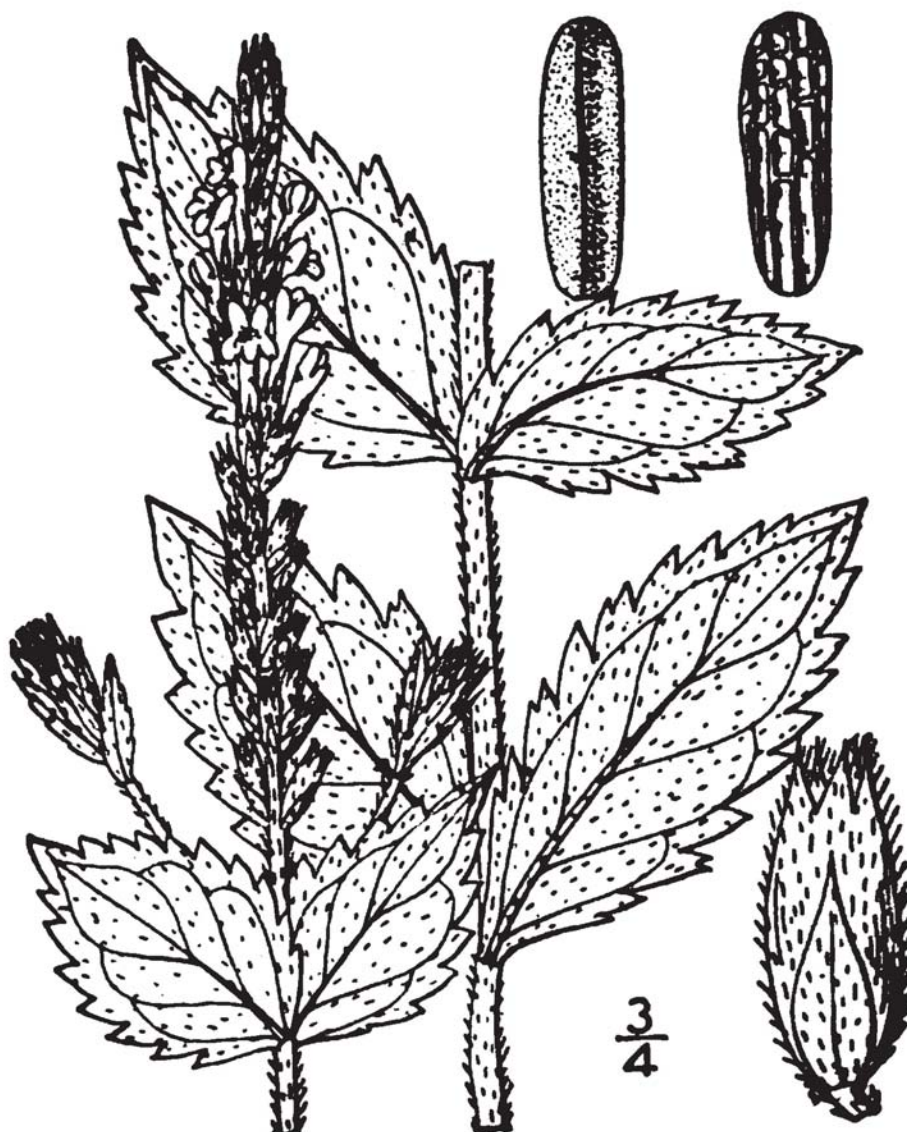
**Identifying characteristics:** Leaves opposite, egg-shaped, coarsely toothed; stems hairy somewhat square; flowers spiked, small, purple.

**Similar species:** White vervain; Nettle.

**Abundance in the Northeast:** Hoary vervain was found on 9% of the farms sampled and 5% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).



Illustration 179: Hoary vervain



## White vervain

*Verbena urticifolia* L. (VEUR)

**Species description:** White vervain is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, egg-shaped, coarsely toothed; stems hairy somewhat square; flower spikes slender, white.

**Similar species:** Hoary vervain; Nettle.

**Abundance in the Northeast:** White vervain was found on 16% of the farms sampled and 8% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.5%).



Illustration 180: White vervain



## European field pansy

*Viola arvensis* Murr. (VIAR)

**Species description:** European field pansy is an introduced annual forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, spatulate, hairy, rounded teeth on margin; Flowers small, similar to garden pansy, pale yellow or yellow with purple.

**Similar species:** Violet.

**Abundance in the Northeast:** European field pansy was found on 2% of the farms sampled and 2% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 181: European field pansy



## Violet

*Viola spp.* (VIOLA)

**Species description:** Violet is a native perennial forb. It is not usually described as a forage species.

**Identifying characteristics:** Leaves heart-shaped, curled at the base, pointed at apex, smooth, rounded teeth on margin long petioles; flowers asymmetrical, purple.

**Similar species:** European field pansy.

**Abundance in the Northeast:** Violet was found on 48% of the farms sampled and 30% of the pastures. Its average cover was 1.2% where present (range 0.1 - 12.5%).



Illustration 182: Violet



## Woody Species

### Sumac

*Rhus sp.*

**Species description:** Sumac is a native perennial shrub. It is not usually described as a forage species.

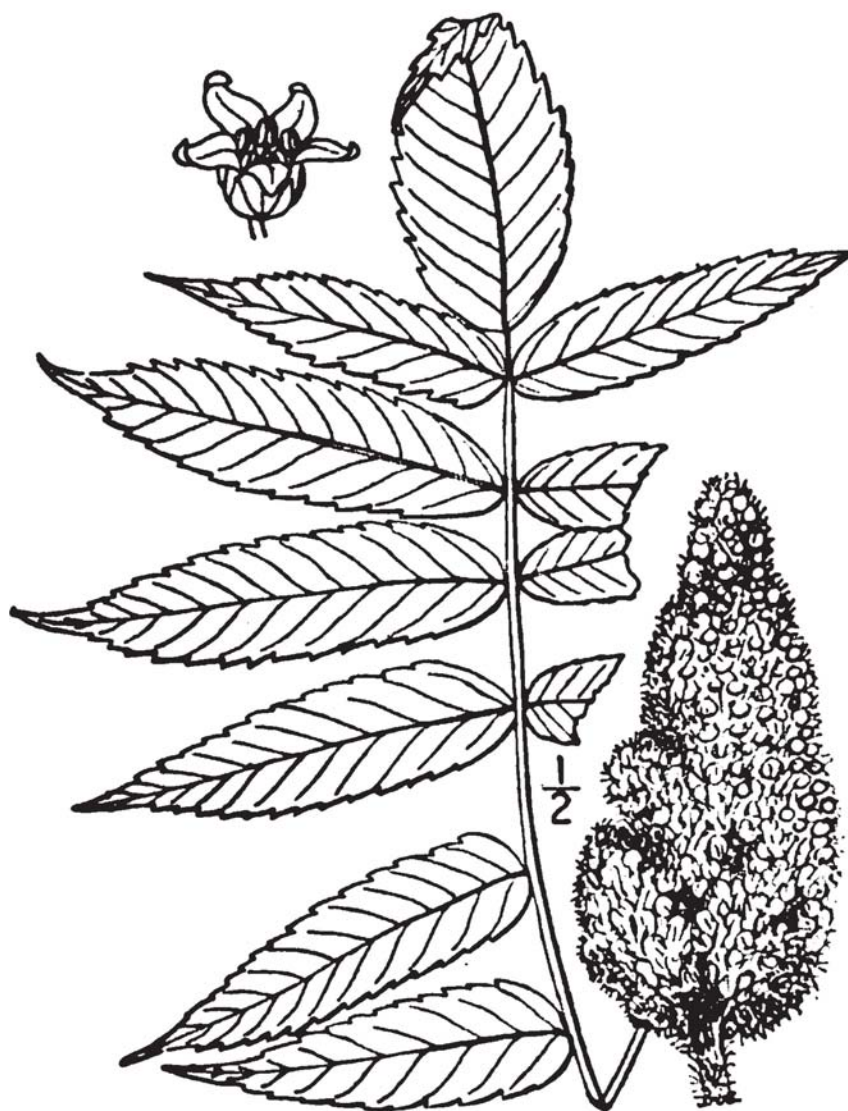
**Identifying characteristics:** Leaves alternate, pinnately compound, 9-31 leaflets; stems and petioles densely hairy; red hairy fruit on terminal ends of branches.

**Similar species:** other sumac; Tree-of-Heaven.

**Abundance in the Northeast:** Sumac was found on 9% of the farms sampled and 3% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).



Illustration 183: Sumac



## Poison ivy

*Toxicodendron radicans* (L.) Kuntze (TORA2)

**Species description:** Poison ivy is a native perennial shrub or vine. It is not usually described as a forage species.

**Identifying characteristics:** Climbing vine; three leaflets, margins toothed, various shapes and size, middle petiole is the longest; flowers small, yellow; CONTACT POISON.

**Similar species:** Poison oak; virginia creeper.

**Abundance in the Northeast:** Poison ivy was found on 7% of the farms sampled and 2% of the pastures. Its average cover was 0.1% where present (range 0.1 - 0.1%).



Illustration 184: Poison ivy



## Morningglory

*Ipomoea* sp. (IPOMO)

**Species description:** Morningglory is an introduced perennial vine. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, heart shaped or 3 lobed, sometimes hairy; stems hairy, viny; flowers funnel shaped on stalks, white, purple, to pale blue.

**Similar species:** many morningglories

**Abundance in the Northeast:** Morningglory was found on 9% of the farms sampled and 3% of the pastures. Its average cover was 0.2% where present (range 0.2 - 0.2%).

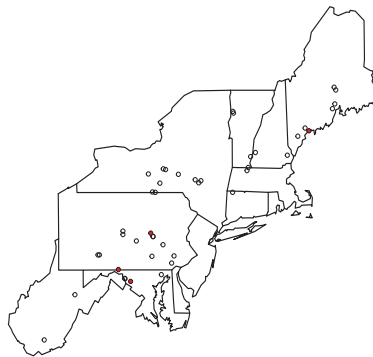


Illustration 185: Morningglory





## Garden thyme

*Thymus vulgaris* L. (THVU)

**Species description:** Garden thyme is an introduced perennial subshrub. It is not usually described as a forage species.

**Identifying characteristics:** Leaves opposite, oblong, 1/4-1/2" long, stems, square, hairy; flowers purple; very aromatic.

**Similar species:** thymeleaf speedwell; healall; pennyroyal.

**Abundance in the Northeast:** Garden thyme was found on 5% of the farms sampled and 4% of the pastures. Its average cover was 3.2% where present (range 2.6 - 4%).

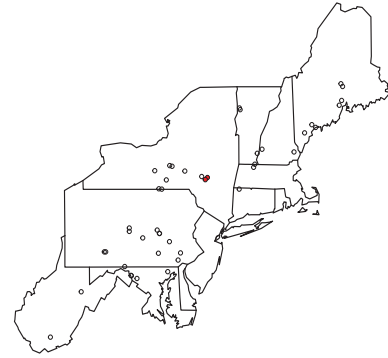


Illustration 186: Morningglory



## Multiflora rose

*Rosa multi lora* Thunb. ex Murr. (ROMU)

**Species description:** Multiflora rose is an introduced perennial shrub. It is not usually described as a forage species.

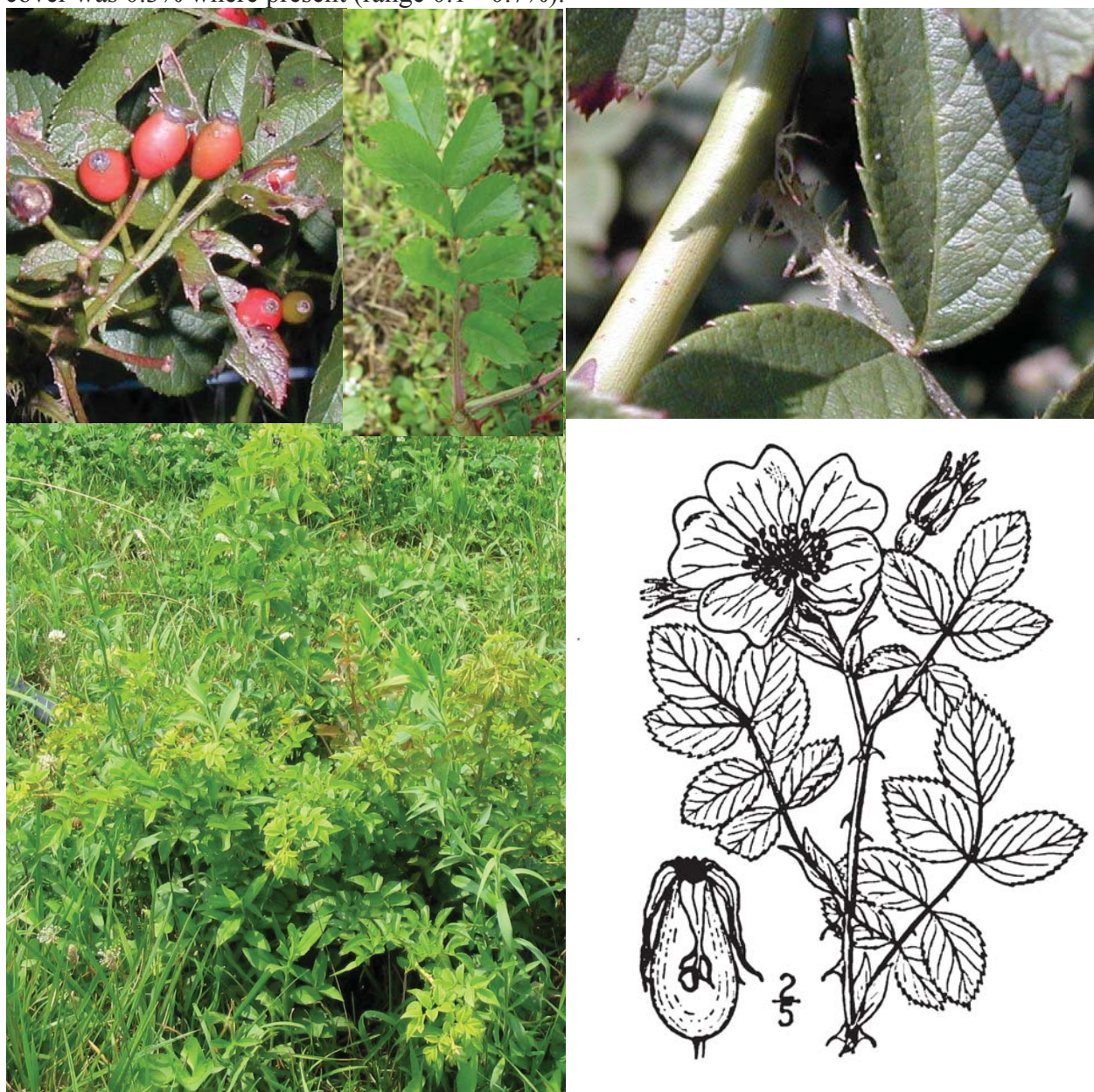
**Identifying characteristics:** Leaves alternate, compound, large fringed stipules, 7-9 serrate leaflets; stems prickly, rambling; flowers white.

**Similar species:** other roses do not have fringed stipule.

**Abundance in the Northeast:** Multiflora rose was found on 34% of the farms sampled and 18% of the pastures. Its average cover was 0.3% where present (range 0.1 - 0.7%).



Illustration 187: Multiflora rose



## Raspberry

*Rubus sp.* (RUBUS)

**Species description:** Raspberry is a native perennial shrub. It is not usually described as a forage species.

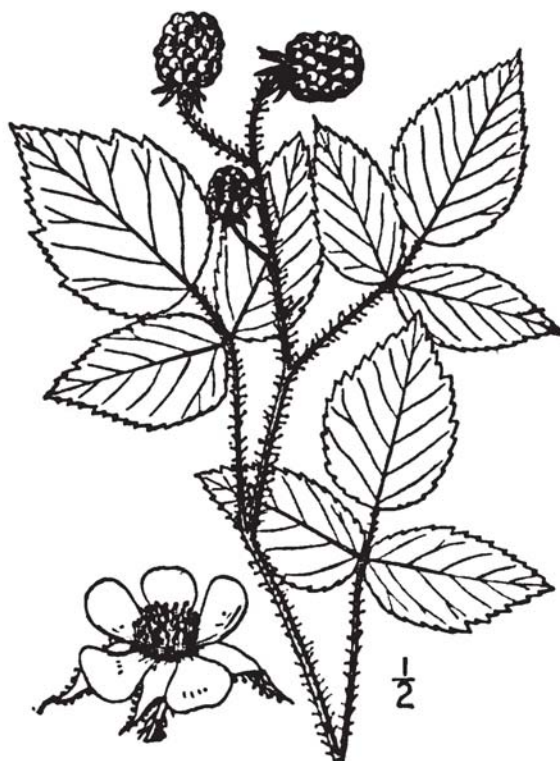
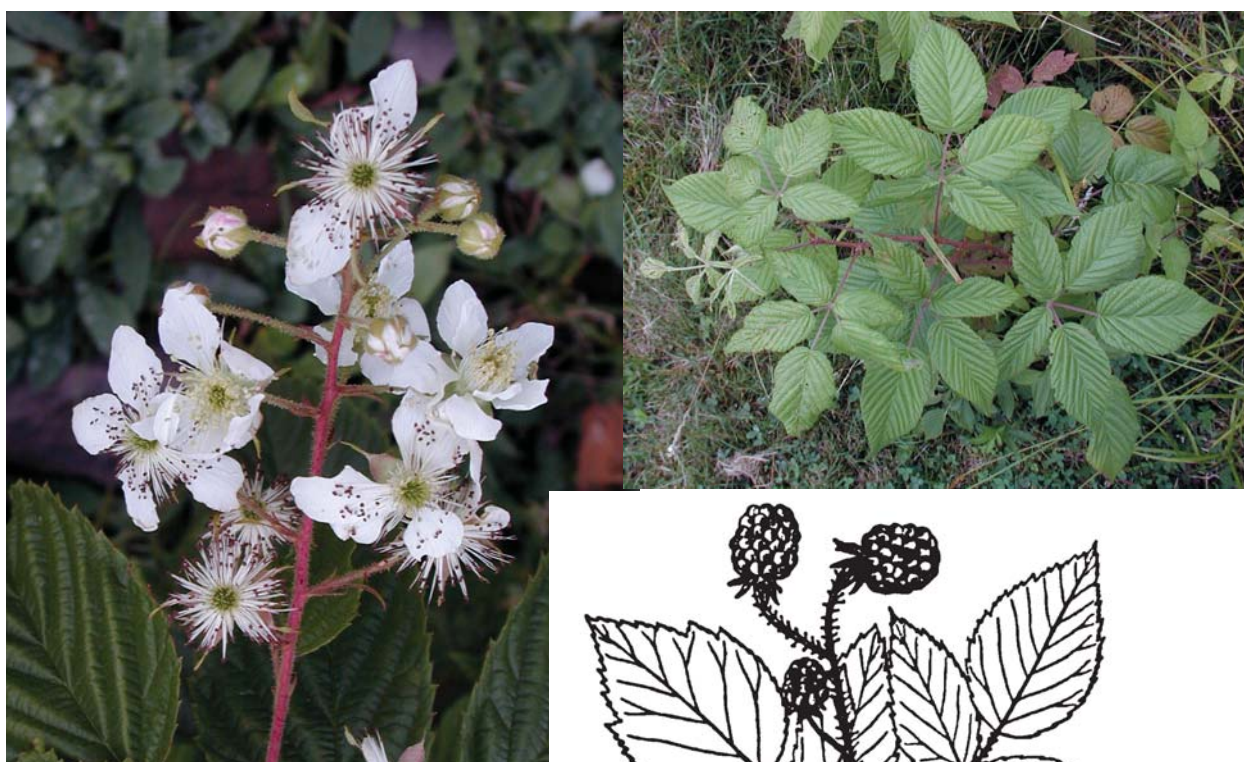
**Identifying characteristics:** Leaves alternate, compound, 3-7 leaflets, serrate margins; stems red or green with prickles; flowers, white, 5 petals; fruit aggregate berry, red or black.

**Similar species:** many brambles

**Abundance in the Northeast:** Raspberry was found on 27% of the farms sampled and 15% of the pastures. Its average cover was 1.7% where present (range 0.1 - 8.3%).



Illustration 188: Raspberry



## Virginia creeper

*Parthenocissus quinquefolia* (L.) Planch. ((PAQU2))

**Species description:** Virginia creeper is a native perennial vine. It is not usually described as a forage species.

**Identifying characteristics:** Leaves alternate, palmately compound, 3-7 but usually 5 leaflets, toothed margins; woody vine; flowers inconspicuous green-white, blue-black berries.

**Similar species:** Poison-ivy

**Abundance in the Northeast:** Virginia creeper was found on 2% of the farms sampled and 1% of the pastures. Its average cover was 0% where present (range 0 - 0%).

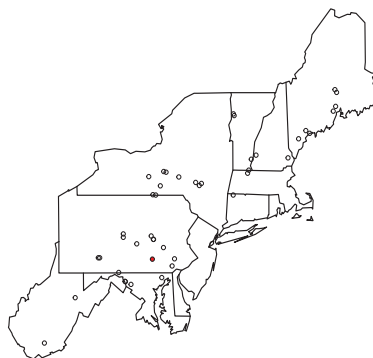


Illustration 189: Virginia creeper



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