

Corso di Laurea in Scienze e Tecnologie delle Produzioni Animali

FONDAMENTI DI AGRONOMIA

Modulo di Produzione e Conservazione dei Foraggi

AGRONOMIA E SISTEMI FORAGGERI

Modulo di Sistemi Foraggeri

Docente: Prof. Egidio Ciriciofolo

**MATERIALE INTEGRATIVO PER IL RICONOSCIMENTO DELLE
SPECIE COLTIVATE (PIANTE E SEMI)**

A cura di A. Onofri e E. Ciriciofolo

Elenco specie (STPA)

SEMI E PIANTE

<i>Avena sativa</i>	avena
<i>Hordeum vulgare</i>	orzo (distico e polistico, nudo e vestito)
<i>Secale cereale</i>	aegale
<i>Sorghum bicolor</i>	sorgo
<i>Triticosecale</i>	triticale
<i>Triticum aestivum</i>	grano tenero
<i>Triticum durum</i>	frumento duro
<i>Zea mays</i>	mais (indentata, indurata, saccharata, everta)
<i>Glycine max</i>	soia
<i>Hedysarum coronarium</i>	sulla
<i>Lotus corniculatus</i>	ginestrino
<i>Lupinus albus</i>	lupino
<i>Medicago sativa</i>	erba medica
<i>Onobrychis viciifolia</i>	lupinella
<i>Pisum arvense</i>	
<i>Pisum sativum</i>	pisello da foraggio
<i>Trifolium alexandrinum</i>	trifoglio alessandrino
<i>Trifolium incarnatum</i>	trifoglio incarnato
<i>Trifolium pratense</i>	trifoglio pratense o t. violetto
<i>Trifolium repens</i>	trifoglio bianco
<i>Trifolium squarrosum</i>	trifoglio squaroso
<i>Vicia faba minor</i>	favino
<i>Vicia sativa</i>	veccia comune
<i>Vicia villosa</i>	veccia vellutata

SOLO PIANTE

<i>Dactylis glomerata</i>	erba mazzolina
<i>Festuca arundinacea</i>	festuca
<i>Lolium multiflorum</i>	loiessa
<i>Lolium perenne</i>	loietto
<i>Phleum pratense</i>	fleolo

Elenco specie (STC e SAA)

SEMI E PIANTE

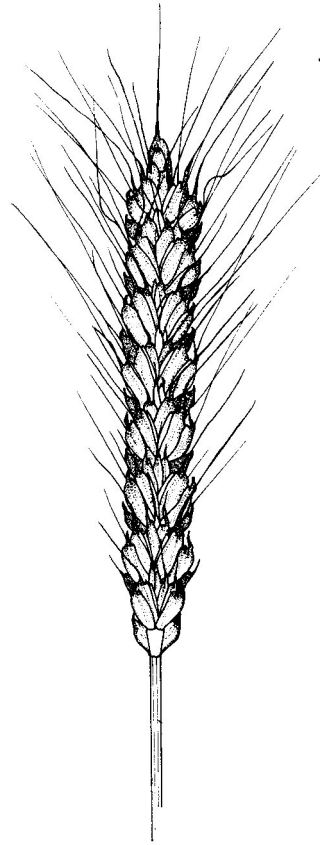
<i>Avena sativa</i>	avena
<i>Hordeum vulgare</i>	orzo (distico e polistico, nudo e vestito)
<i>Secale cereale</i>	aegale
<i>Sorghum bicolor</i>	sorgo
<i>Triticosecale</i>	triticale
<i>Triticum aestivum</i>	grano tenero
<i>Triticum durum</i>	frumento duro
<i>Zea mays</i>	mais (indentata, indurata, saccharata, everta)
<i>Oryza sativa</i>	risone

<i>Beta vulgaris</i>	barbabietola da zucchero (seme confettato)
<i>Brassica napus</i>	colza
<i>Glycine max</i>	soia
<i>Hedysarum coronarium</i>	sulla
<i>Helianthus annuus</i>	girasole
<i>Lotus corniculatus</i>	ginestrino
<i>Lupinus albus</i>	lupino
<i>Medicago sativa</i>	erba medica
<i>Onobrychis viciifolia</i>	lupinella
<i>Pisum arvense</i>	pisello da foraggio
<i>Pisum sativum</i>	pisello proteico
<i>Trifolium alexandrinum</i>	trifoglio alessandrino
<i>Trifolium incarnatum</i>	trifoglio incarnato
<i>Trifolium pratense</i>	trifoglio pratense o t. violetto
<i>Trifolium repens</i>	trifoglio bianco
<i>Trifolium squarrosum</i>	trifoglio squarroso
<i>Vicia faba minor</i>	favino
<i>Vicia sativa</i>	veccia comune
<i>Vicia villosa</i>	veccia vellutata

SOLO PIANTE

<i>Dactylis glomerata</i>	erba mazzolina
<i>Festuca arundinacea</i>	festuca
<i>Lolium multiflorum</i>	loiessa
<i>Lolium perenne</i>	loietto
<i>Phleum pratense</i>	fleolo

Infiorescenza delle graminacee



SPIGA



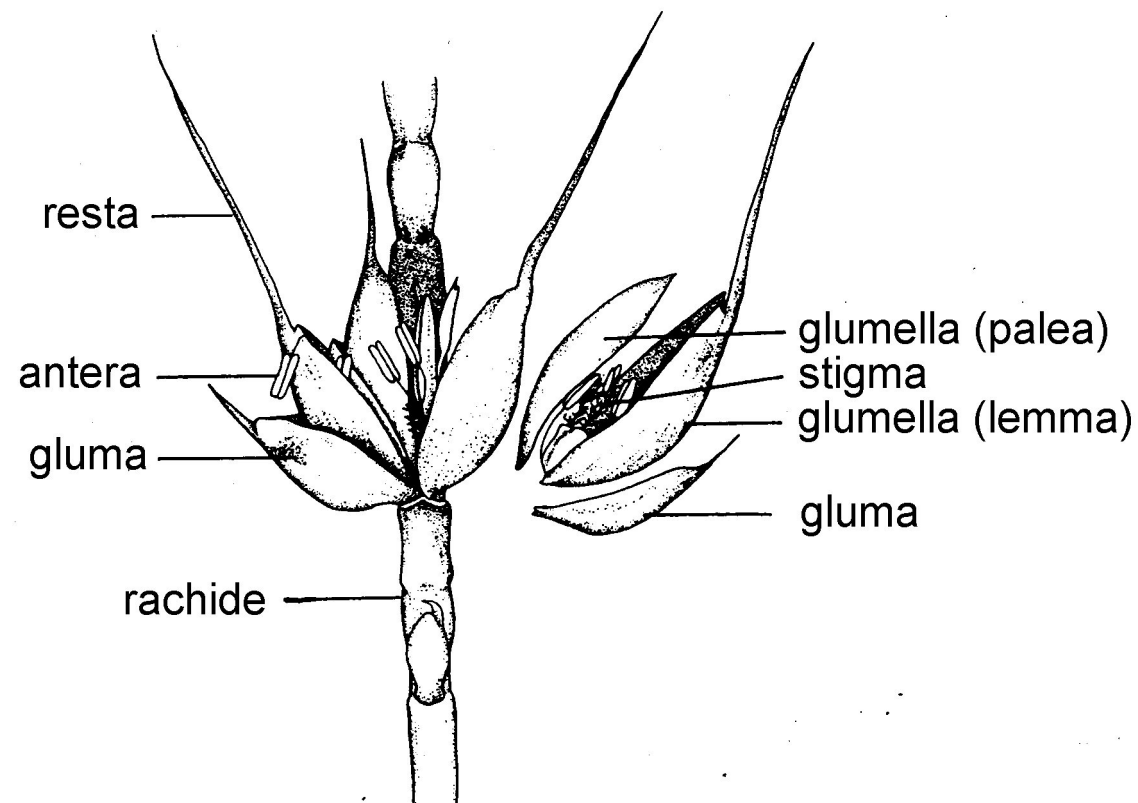
Rachide

PANNOCCHIA

Tipi di spighe

- COMPATTE, LASSE o CLAVATE
 - spighette serrate, rachide con internodi corti
 - rachide visibile tra le spighette
 - spighette serrate all'apice e distanziate alla base
- MUTICHE, ARISTATE o SEMIARISTATE
 - reste presenti
 - reste assenti
 - resti presenti ma non su tutte le spighette

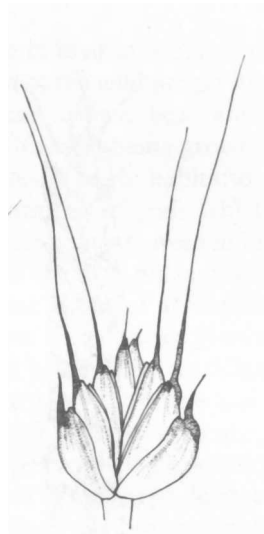
Fiore delle graminacee (spighetta)



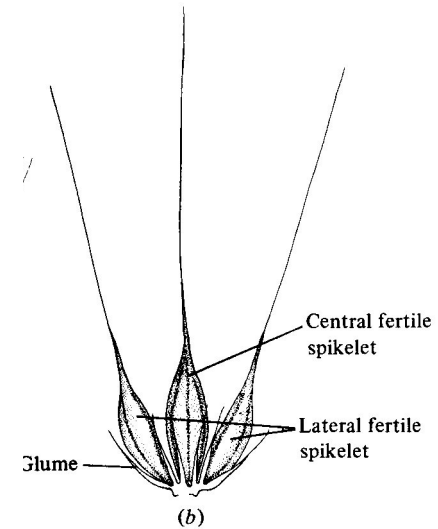
Tipi di spighette



uniflora

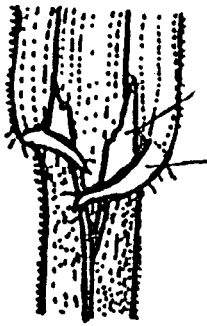


pluriflora

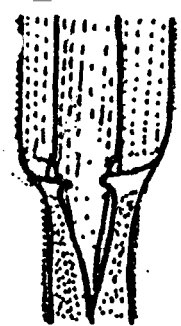


Spighette uniflore
(più spighette sullo
stesso nodo del rachide)

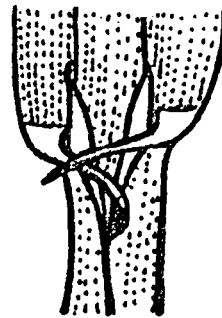
Riconoscimento piante giovani



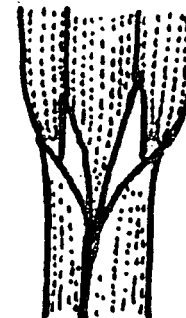
Frumento
Ligula lunga
Auricole lunghe



Segale
Ligula corta
Auricole false

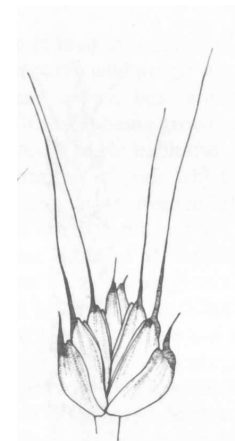
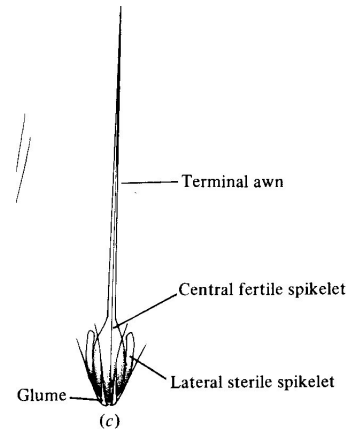
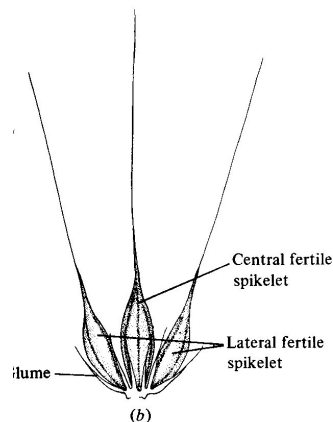
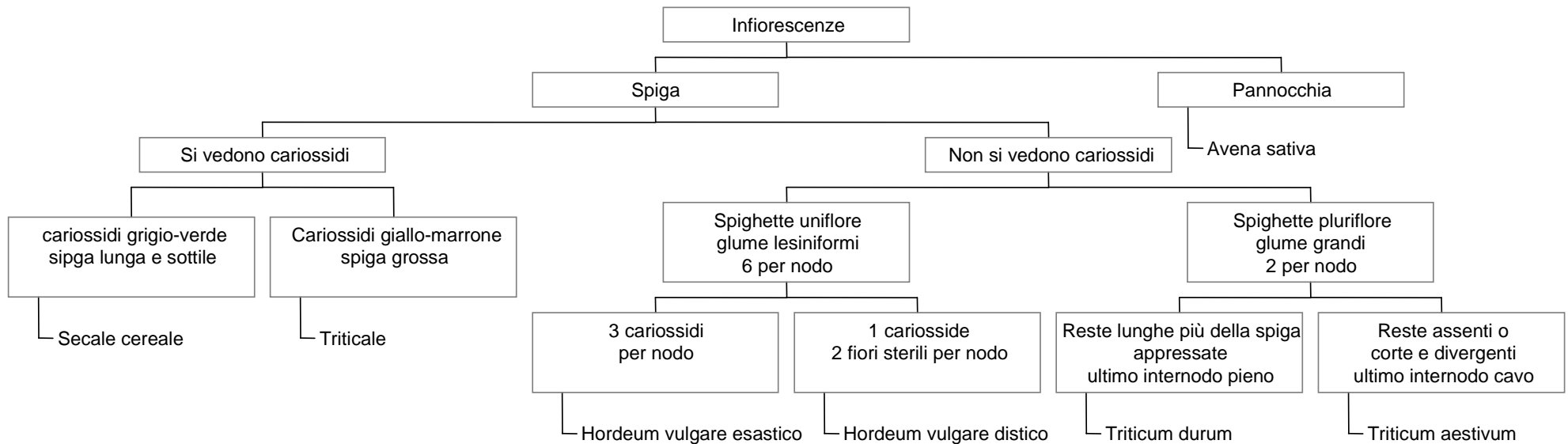


Orzo
Ligula lunga
Auricole molto
lunghe



Avena
Ligula molto lunga
Auricole assenti

Riconoscimento spighe cereali autunno-vernini



Genere *Triticum*

riconoscimento spighe

Rachide rigido

spighette si disarticolano con
facilità



*Triticum aestivum o
durum*

vedi pagina precedente

Rachide fragile

cariossidi vestite

Triticum dicoccum (farro)

2 cariossidi per spighetta

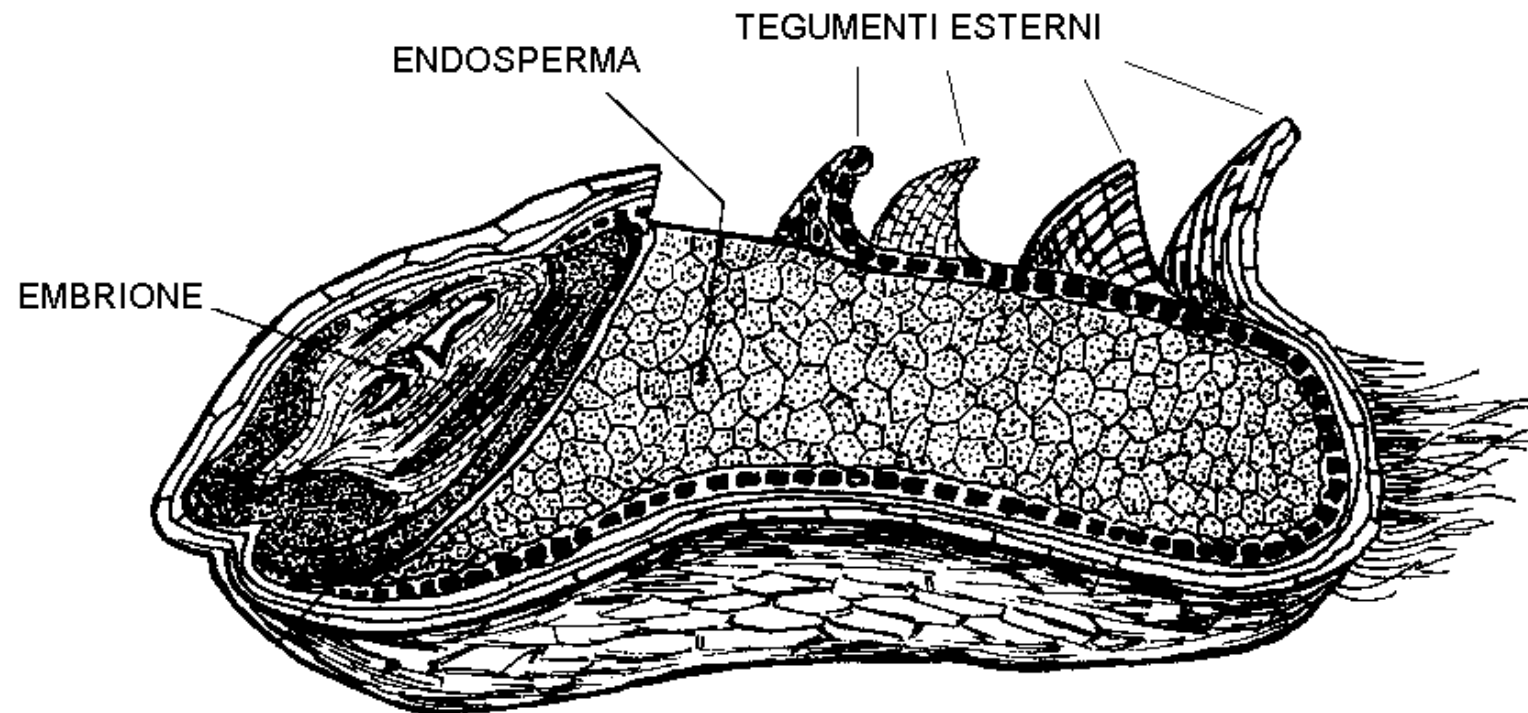
*Triticum monococcum
(piccolo farro)*

1 cariosside per spighetta
spalla gluma a V

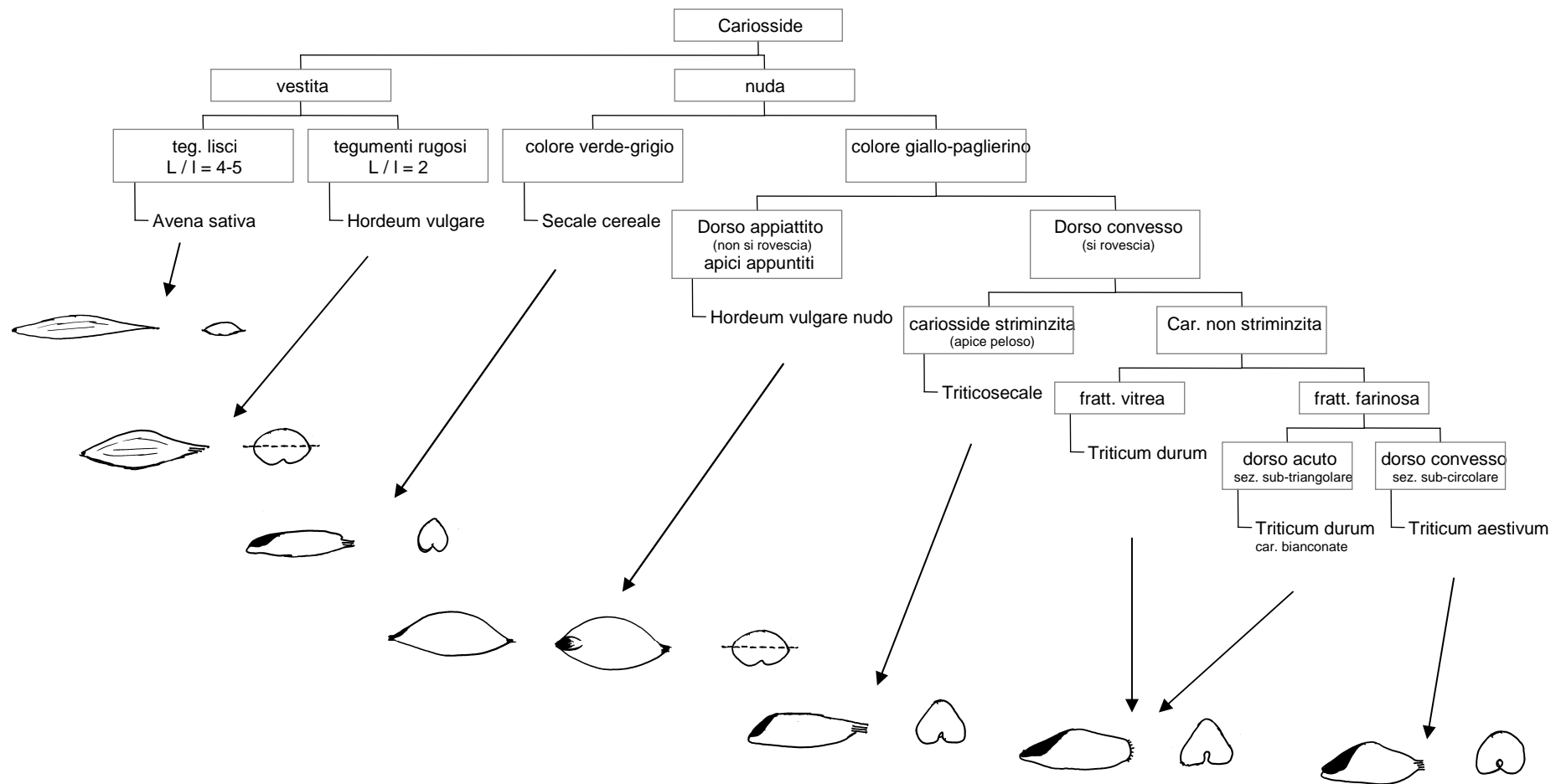
*Triticum spelta
(grande farro)*

spiga lassa

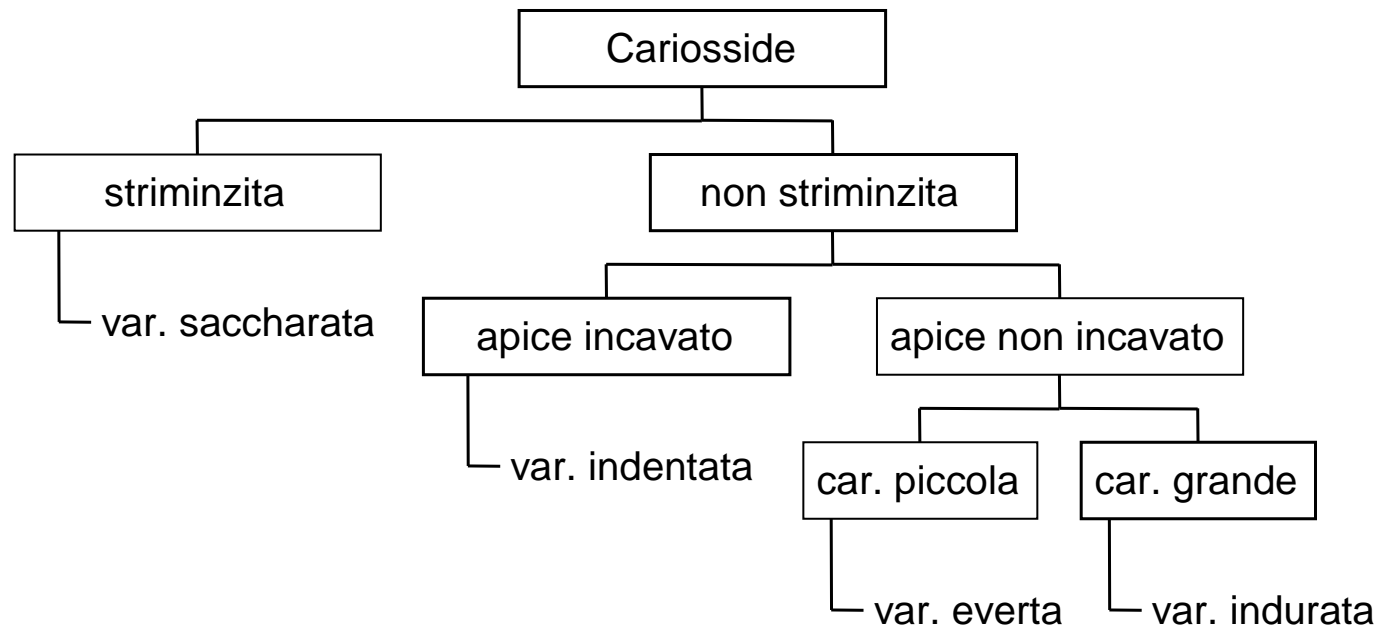
Cariosside



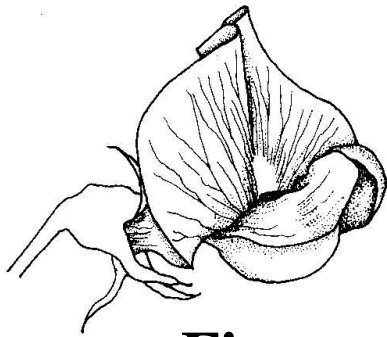
Riconoscimento semi cereali



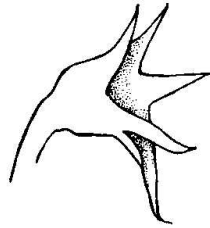
Riconoscimento granella mais



Fiore papilionaceo



Fiore



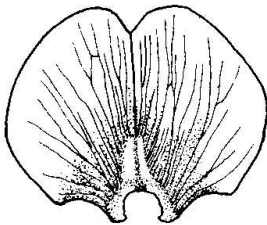
Calice



Carena



Pistillo e stami



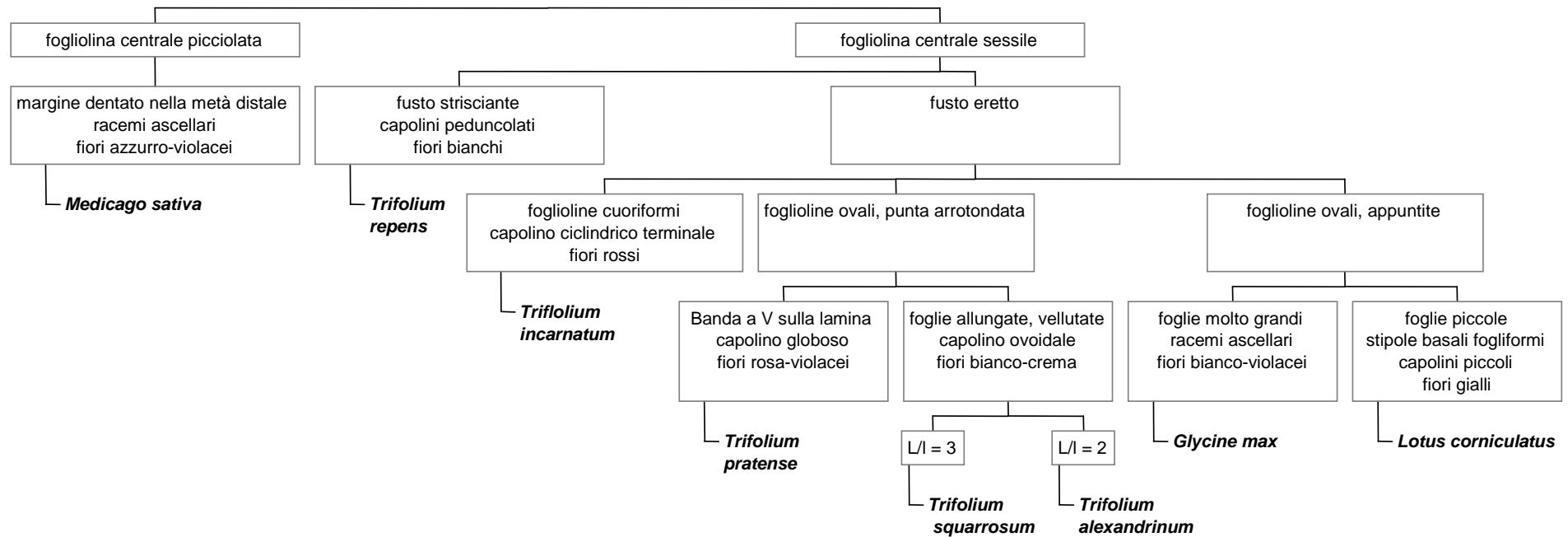
Vessillo



Ali

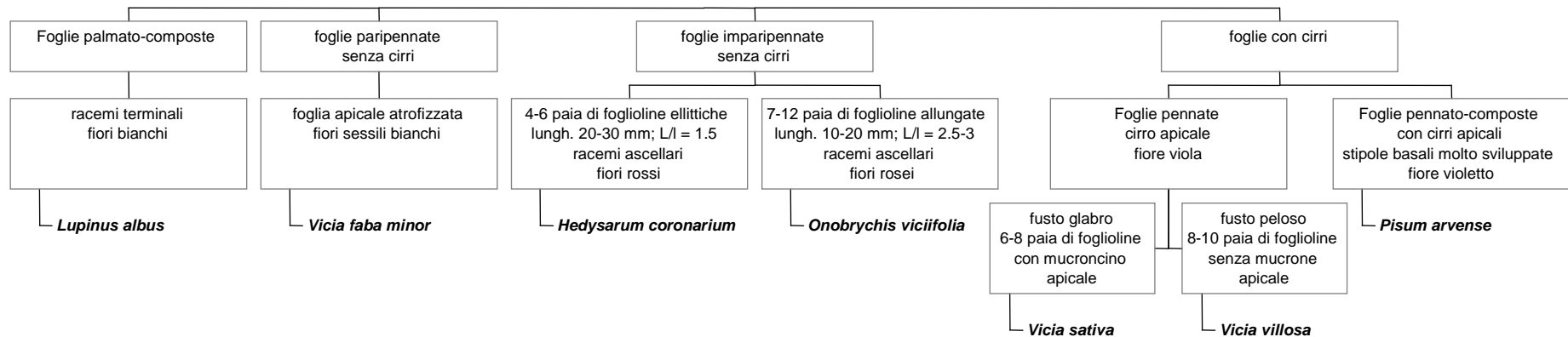
Riconoscimento leguminose

foglie trifogliate



Riconoscimento leguminose

foglie non trifogliate



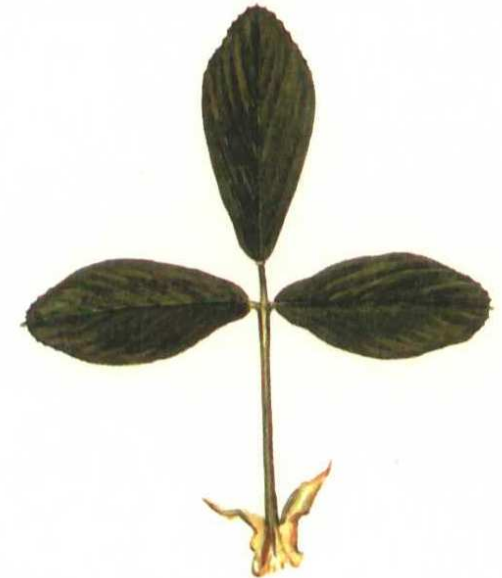
Leguminose: foglie trifogliate



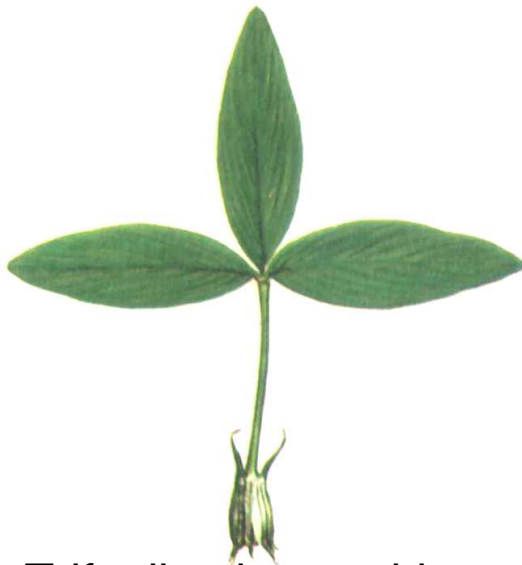
Trifoglio bianco



Trifoglio violetto



Erba medica



Trifoglio alessandrino



Trifoglio incarnato

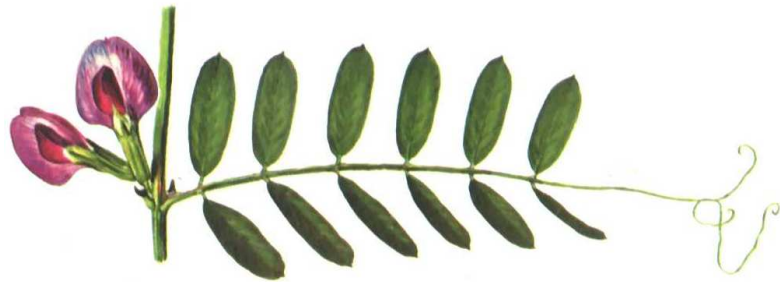


Trifoglio squaroso



ginestrino

Leguminose: foglie pennate o palmate



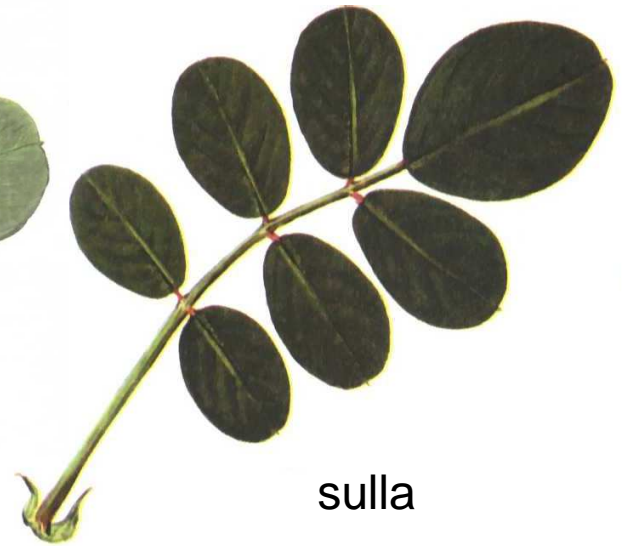
Veccia comune



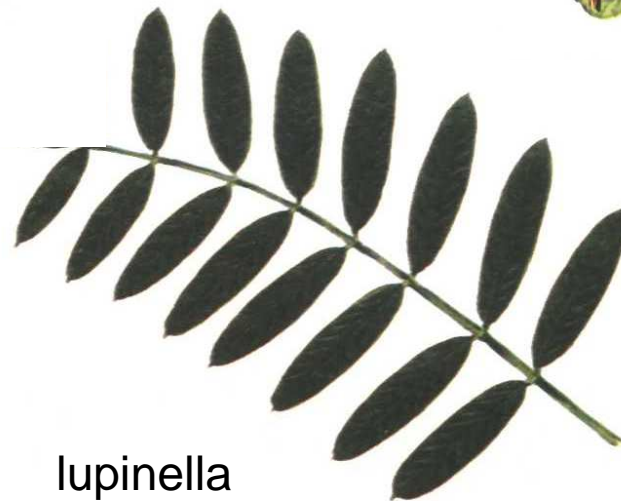
Veccia vellutata



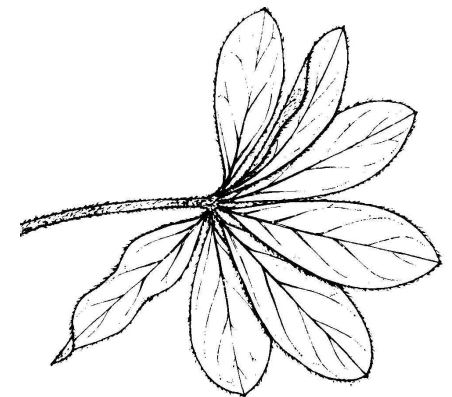
favino



sulla



lupinella

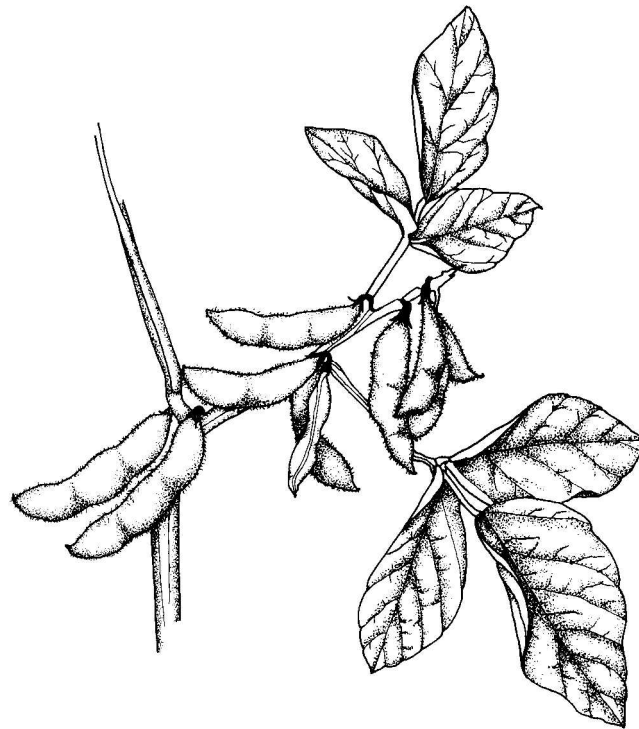


lupino



Pisello da foraggio

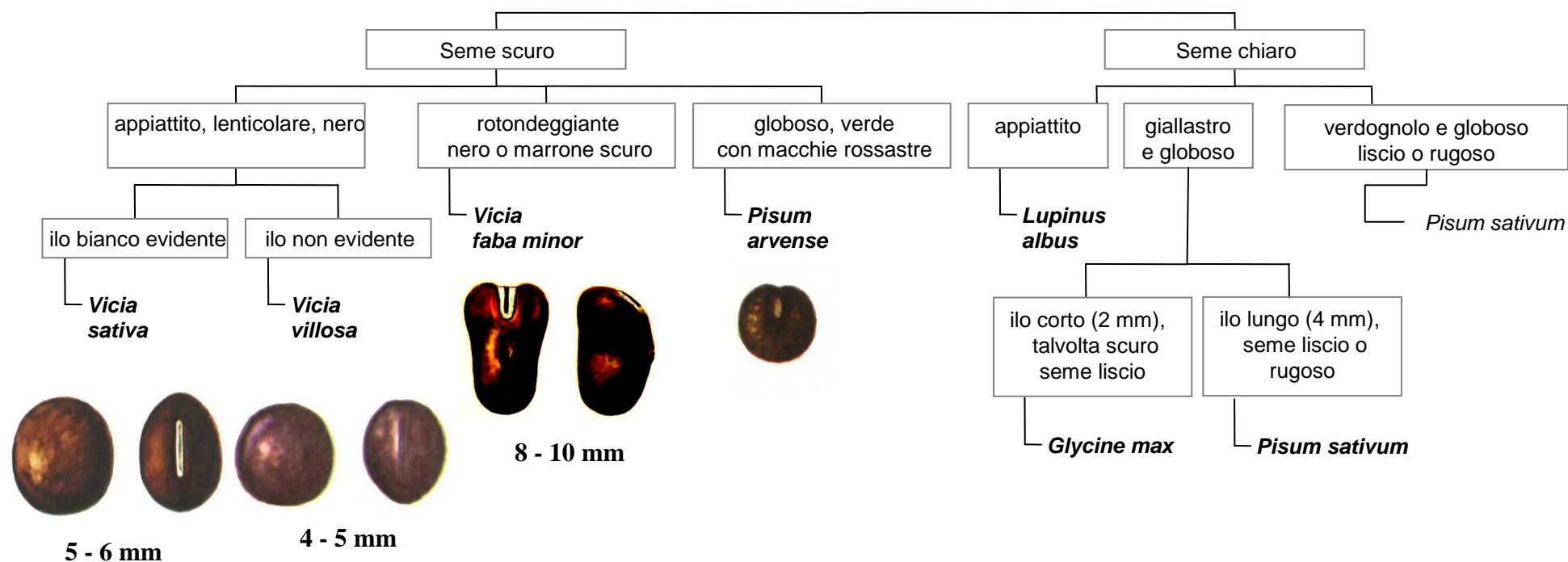
Glycine max (soia)



Fiore bianco o violaceo

Riconoscimento semi leguminose

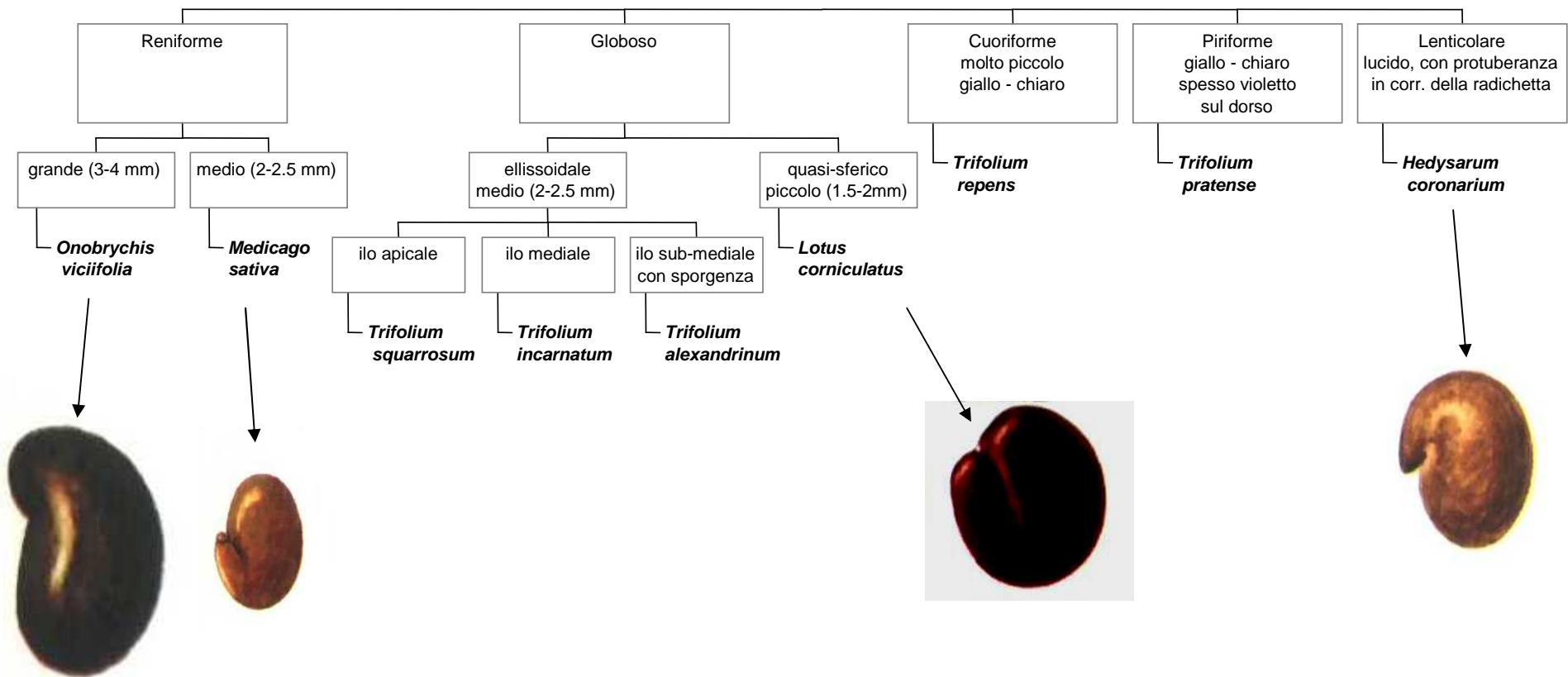
semi grandi (lunghezza > 4 mm)



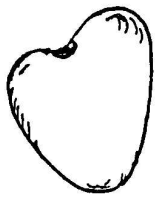
NB le misure indicano l'altezza

Riconoscimento semi leguminose

semi piccoli (dimensione massima < 4 mm)



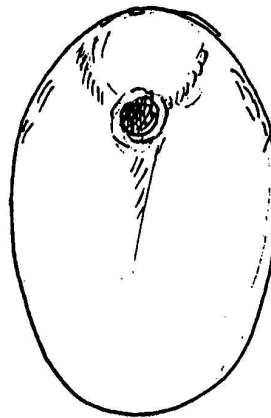
Riconoscimento semi trifogli



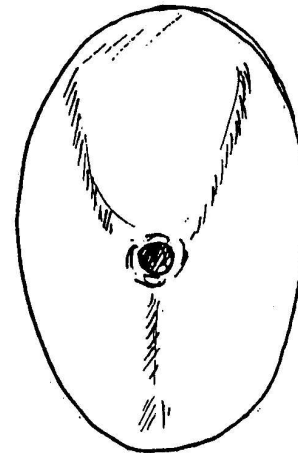
T. repens
(0.5 - 0.7 mg)



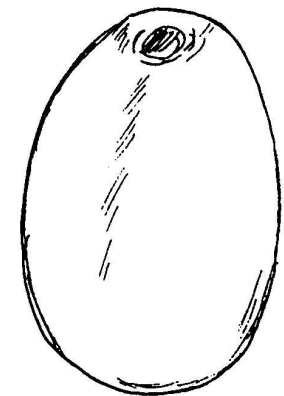
T. pratense
(1.6 - 2.0 mg)



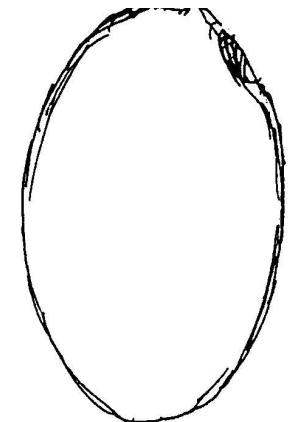
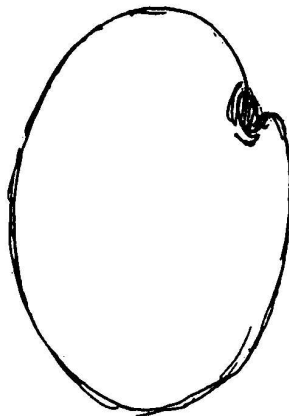
T. alexandrinum
(2.6 - 3.0 mg)



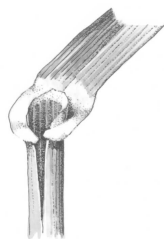
T. incarnatum
(3.2 - 3.6 mg)



T. squarrosus
(4.5 - 5.0 mg)



Riconoscimento delle graminacee da prato-pascolo



*Festuca
arundinacea*



*Dactylis
glomerata*



Lolium perenne



Phleum pratense