# Vegetative Key for Annual and Perennial Grasses

Prepared by Beecher Crampton,- September 1954

Revised by Kevin Rice – December 2001

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| Auricles present, distinct and claw-like |  |
| Blades and sheaths conspicuously hairy | 1. Mouse barley  (*Hordeum murinum*  ssp.*leporinum*) |
| Blades and sheath without hairs (sometimes minutely hairy in certain varieties of wheat) |  |
| Foliage glossy | 2. Perennial Ryegrass  (*Lolium perenne*) |
| Foliage not glossy |  |
| Auricles smooth | 3. Barley  (*Hordeum vulgare*) |
| Auricles usually hairy | 4. Wheat  (*Triticum spp*.) |
| Auricles absent, or rarely, if present, rounded and not at all claw-like, |  |
| Foliage with obvious hairs; sometimes sparse or localized, but still readily seen |  |
| Blades hairy; sheaths not obviously hairy, sometimes minutely roughened |  |
| Collars oblique | 5. The Wheatgrasses  (*Agropyron, Elymus, Elytrigia*) |
| Collars prominent and at right angles to culms; sheaths  closed | 6. Medusahead  (*Taeniatherum caput-*  *medusae*) |
| Blades hairy; sheaths hairy |  |
| Sheaths more hairy than the blades |  |
| Veins on sheaths very prominent, wide | 7. Ripgut Brome  (*Bromus diandrus*) |
| Veins on sheaths not prominent, very narrow |  |
| Blades hairy above and below | 8. Australian Chess  (*Bromus arenarius*) |
|  | 9. Soft Chess  (*Bromus hordeaceus*) |
|  | 10. Smooth Chess  (*Bromus hordeaceus*) |
|  | 11. Prairie Brome  (*Bromus catharticus*) |
|  | 12. Harlan Brome  (*Bromus stamineus*) |
| Blades hairy below, merely rough above | 13. California Brome  (*Bromus carinatus*) |
| Sheaths and blades evenly hairy; the hairs sometimes sparse |  |
| Sheaths split; hairs very sparse | 14. Wild Oats  (*Avena fatua*) |
| Sheaths closed; hairs rather dense |  |
| Hairs stiff; foliage roughened | 15. Goat Grass  (*Aegilops triuncialis*) |
| Hairs soft; foliage minutely or not at all roughened |  |
| Sheaths with prominent veins |  |
| Ligule very short | 16. Downy Chess  (*Bromus tectorum*) |
| Ligule long (as long as width of blade) | 17. Red Brome  (*Bromus madritensis* ssp.  *rubens*) |
| Sheaths with indistinct veins |  |
| Foliage roughened | 18. Smooth Brome  (*Bromus inermis*) |
| Foliage not roughened | 19. Mediterranean Barley  (*Hordeum marinum* ssp.  *gussoneanum*) |
| Foliage without obvious hairs (sometimes the collar hairy), often minutely hairy but these not readily seen; minutely roughened or smooth |  |
| Ligule a fringe of hairs; collars fringed with hairs |  |
| Seedling early branching at base with slender blades; sheath veins indistinct | 20. *Schismus arabicus* |
| Seedling not early branching at base; blades wide; sheath veins prominent | 21. California Oatgrass  (*Danthonia californica*) |
| Ligule membranous, never frigned; collars smooth or very minutely hairy |  |
| Collars at an angle of 45° - 60° with long axis of the culm |  |
| Plants gray-green with pointed ligules; blades without crinkles | 22. Little Quaking Grass  (*Briza minor*) |
| Plants dark green with rounded ligules; blades crinkled at mid-portion | 23. Annual Bluegrass  (*Poa annua*) |
| Collars at right angles to long axis of the culm |  |
| Blades very narrow with rolled edges (involute) at least in early seedling stage |  |
| Sheaths closed |  |
| Blades very much elongated; sheaths bronze colored | 24. Medusahead  (*Taeniatherum caput-*  *medusae*) |
| Blades short, tufted |  |
| Foliage bluish green; sheaths sometimes reddish brown at base | 25. Red Fescue  (*Festuca rubra*) |
| Foliage light green | 26. Annual Fescues  (*Vulpia* spp.) |
| Sheaths open |  |
| Collars indistinct |  |
| Ligule prominent; leaves bluish green | 27. Indian Ricegrass  (*Achnatherum hymenoides*) |
| Ligule minute; leaves green | 28. Smilo  (*Piptatherum miliaceum*) |
| Collars distinct |  |
| Ligule pointed, sheaths with wide membranous margin | 29. Silver Hairgrass  (*Aira caryophyllea*) |
| Ligule rounded or flat |  |
| Foliage bluish green, sheaths smooth or slightly roughened |  |
| Collar prominent as a ring of very short hairs | 30. Nodding Stipa  (*Nassella cernua*) |
| Collar smooth | 31. Colonial Bent  (*Agrostis capillaris*) |
| Foliage light green; sheaths roughened | 32. Nitgrass  (*Gastridium ventricosum*) |
| Blades broad and flat or folded |  |
| Blades V-shaped, sheaths flattened | 33. Orchardgrass  (*Dactylis glomerata*) |
| Blades flat, never V-shaped, sheaths cylindrical |  |
| Sheaths closed |  |
| Foliage light green; glossy, not prominently veined |  |
| Sheaths minutely roughened; blades with distinct midrib | 34. Annual Ryegrass  (*Lolium multiflorum*) |
| Sheaths smooth; blades with indistinct midrib | 35. Perennial Ryegrass  (*Lolium perenne*) |
| Foliage dark green; prominently veined | 36. Tall Fescue  (*Festuca arundinacea*) |
| Sheaths open |  |
| Collar prominent as a ring of very short hairs | 37. Purple Needlegrass  (*Nassella pulchra*) |
| Collar smooth |  |
| Ligule minute, not readily visible from the side; foliage green | 38. Tall Oatgrass  (*Arrhenatherum elatius*) |
| Ligule very prominent; easily visible from the side; foliage bluish-green |  |
| First blade broad, rounded at the tip; base of the culm never with red pigment | 39. Slender Wild Oats  (*Avena barbata*) |
|  | 40. Wild Oats  (*Avena fatua*) |
| First blade slender, pointed at the tip; base of the culm with reddish pigment, often “bleeding” when injured. Margins of the sheath with broad clear membrane |  |
| Blade surfaces smooth (only as seedlings) | 41. Koleagrass  (*Phalaris aquatica*) |
| Blade surfaces slightly roughened | 42. Club Canarygrass  (*Phalaris paradoxa*) |
|  | 43. Mediterranean Canarygrass  (*Phalaris minor*) |
|  | 44. Hardinggrass  (*Phalaris aquatica*) |