

Germination of the annuals usually starts around November. The plants grow slowly from November to March, rapidly during March and April, and flower and dry up by June. Before March the new vegetation is still in the vegetative state and is difficult to identify. After June identification is also difficult because of the disintegration of the dry plants. Although the weather does not hinder surveys or experimental work except for short periods during the year, the condition and growth stage of the vegetation does. Keys based on vegetative characters are therefore very useful in this type.

The important annual grasses

Out of approximately 118 species of annual grasses found in California, only some 13 have range importance from the standpoint of abundance or forage value. The relative distribution and abundance of the annual grasses in the State are shown in table 1.

Table 1.- Distribution of annual grasses in California

<u>Desert regions</u>	<u>Number of species</u>
1. <i>Bouteloua arenosa</i>	<u>5</u>
2. " <i>aristidoides</i>	
3. " <i>barbata</i>	
4. <i>Eriochloa aristata</i>	
5. <i>Poa bigelovii</i>	
<u>Higher altitudes (2,500 feet and higher)</u>	<u>6</u>
1. <i>Bromus tectorum</i>	
2. <i>Festuca eastwoodae</i>	
3. <i>Phelum alpinum</i>	
4. " <i>pratense</i>	
5. <i>Poa bolanderi</i>	
6. <i>Sporobolus confusus</i>	

Annual type

Cultivated lands

26

1. *Chloris virgata*
2. *Digitaria sanguinalis* (Syntherisma)
3. *Echinochloa colozum*
4. " *crusgalli*
5. *Eleusine indica*
6. *Eragrostis barrelieri*
7. *Eragrostis caroliniana*
8. " *cilianensis*
9. " *hypnoides*
10. " *lutescens*
11. " *mexicana*
12. " *orcuttiana*
13. " *pileosa*
14. " *poaeoides*
15. *Holcus sorghum* var *sudanense*
16. *Leptochloa fascicularis*
17. " *filiformis*
18. " *uninervis*
19. *Panicum barbipulvinatum*
20. " *miliaceum*
21. *Phalaris brachystachys*
22. " *canariensis*
23. " *paradoxa*
24. *Poa annua*
25. *Setaria lutescens* (*Chaetochloa lutescens*)
26. " *verticillata*
27. " *viridis*

Range and waste lands

Wet and alkali areas

8

1. *Anthochloa coluzana*
2. *Crypsis aculeata*
3. *Lepturus cylindricus*
4. *Orcuttia californica*
5. *Pholiurus incurvus*
6. *Pleuropogon californicus*
7. *Puccinellia simplex*

Fresh water streams and ditches

4

1. *Beckmannia erucasiformis*
2. *Polygona lutosus*
3. " *maritimus*
4. " *monspeliensis*

Open hillsides and fields

Rare species

1. *Aegilops cylindrica*
2. " *ovata*
3. *Aira capillaris* (*Aspris capillaris*)
4. " *praecox*
5. *Agrostis exigua*
6. *Arrhenatherum elatius*
7. *Aspris capillaris*
8. *Brachypodium distachyon*
9. *Briza media*
10. " *maxima*
11. *Bromus brizaeformis*
12. " *scoparius*
13. *Cenchrus pauciflorus*
14. " *echinatus*
15. *Cutandia memphitica*
16. *Gynosurus echinatus*
17. *Dissanthelium californicum*
18. *Eriochloa contracta*
19. *Festuca myuros*
20. *Hordeum depressum*
21. *Lagurus ovatus*
22. *Muhlenbergia microsperma*
23. *Orcuttia greenii*
24. " *tennis*
25. *Panicum capillare*
26. *Phalaris caroliniana*
27. " *minor*
28. *Schismus barbatus*
29. *Scribneria bolandari*
30. *Tricholaena rosea*

Locally distributed

19

1. *Aegilops triuncialis*
2. *Aristida adscensionis*
3. " *oligantha*
4. *Bromus commutatus*
5. " *japonicus*
6. " *secalinus*
7. *Festuca arida*
8. " *bromoides*
9. " *octoflora*
10. *Elymus caput-medusae*
11. *Hordeum pusillum*
12. *Koeleria philloides*
13. *Lamarckia aurea*
14. *Lolium temulentum*
15. *Panicum arizonicum*
16. " *hirticaule*
17. *Phalaris lemmoni*
18. " *angusta*
19. *Poa howellii*

Widely distributed

Scattered

9

1. *Aira caryophylla* (Aspris)
2. *Briza minor*
3. *Bromis madritensis*
4. " *racemosus*
5. " *sterilis*
6. " *trinii*
7. *Deschampsia danthonioides* (Aira)
8. *Gastridium ventricosum*
9. *Hordeum gussoneanum*

Abundant

13

1. *Avena barbata*
2. " *fatua*
3. *Bromis arenarius*
4. " *hordeaceus*
5. " *rigidus*
6. " *rubens*
7. *Festuca megalura*
8. " *confusa*
9. " *grayi*
10. " *microstachys*
11. " *pacifica*
12. " *reflexa*
13. *Hordeum murinum*

Total 120

Widely distributed

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10. " *microstachys*
11. " *pacifica*
12. " *reflexa*
13. *Hordeum marinum*

Total 120