



POACEAE

THE 5TH LARGEST FAMILY OF FLOWERING PLANTS



POACEAE - (FORMERLY CALLED GRAMINEAE)

Poaceae, previously known as **Gramineae** are the "true" grasses.

They are a large family of Monocot flowering plants. There are around 11,000 species and roughly 800 genera, and they are one of most ecologically and economically important of all plant families.

FOOD SOURCE

The Poaceae are the world's single most important source of food.

THE AVERAGE DIET

The Food and Agriculture Organization of The United Nations (FAO) estimates that cereals supply 51 percent of calories and 47 percent of protein in the average diet.

HUMAN CONSUMPTION

Grasses directly supply about 60% of the world's food for human consumption.

GLOBAL PRODUCTION

The total annual cereal production globally is about 2,500 million tons.

PRINCIPAL CEREALS

The principal cereals are, in order of importance, Wheat, Rice, Maize, Barley, Oats, Sorghum, Rye and several grasses usually grouped together and termed 'Millets'. Rice, grown largely in the tropics and sub-tropics, is the staple diet for half of the world's population while wheat is the preferred food in temperate regions.



KEY INFORMATION



Grasses are perennial or annual.



The root system consists of fine, fibrous roots.



Grass stems, sometimes called culms, are herbaceous or woody.



Corms and bulbs are sometimes present, and roots may develop from the lower nodes or joints of the stem, as in corn.



The internodes are usually round in cross-section and either hollow or filled with a spongy pith. The unusual thing is their method of growth: they elongate by means of cell division.



Some of the structural strength required for grass plants to stand erect comes from the leaves, particularly the leaf sheaths.



KEY INFORMATION



The other major part of the grass leaf is the blade. Grass leaves are borne singly at the leaf blades are usually long and narrow, with parallel margins.



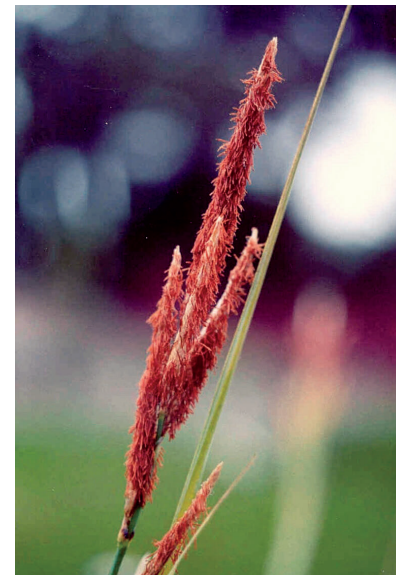
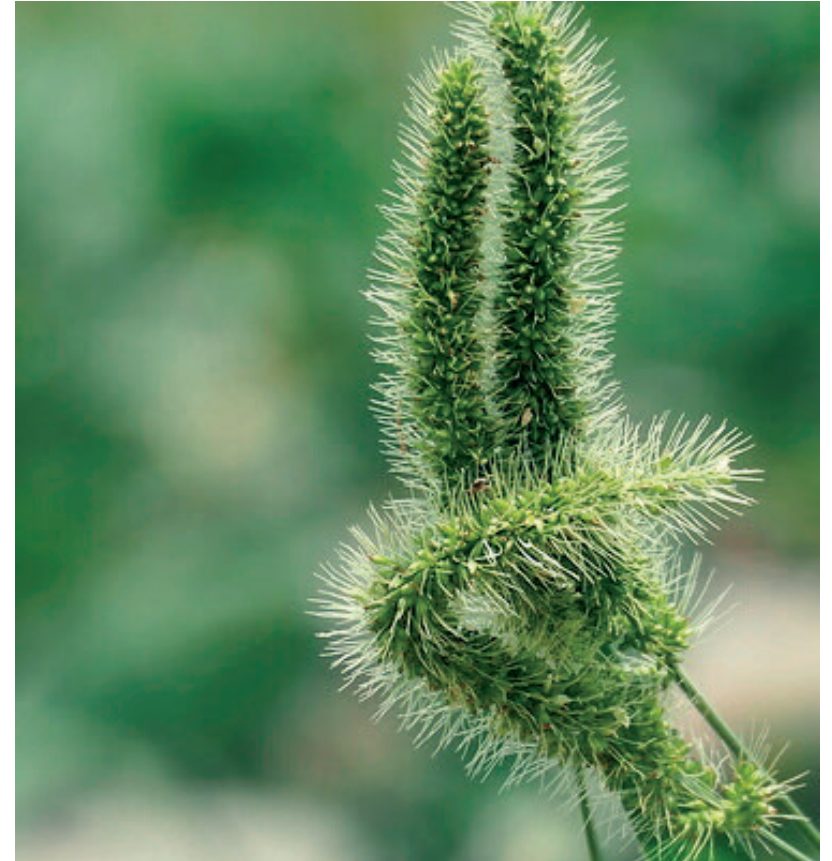
Grass flowers are very small and simplified compared with the flowers of most other plants and are well adapted for wind-pollination.



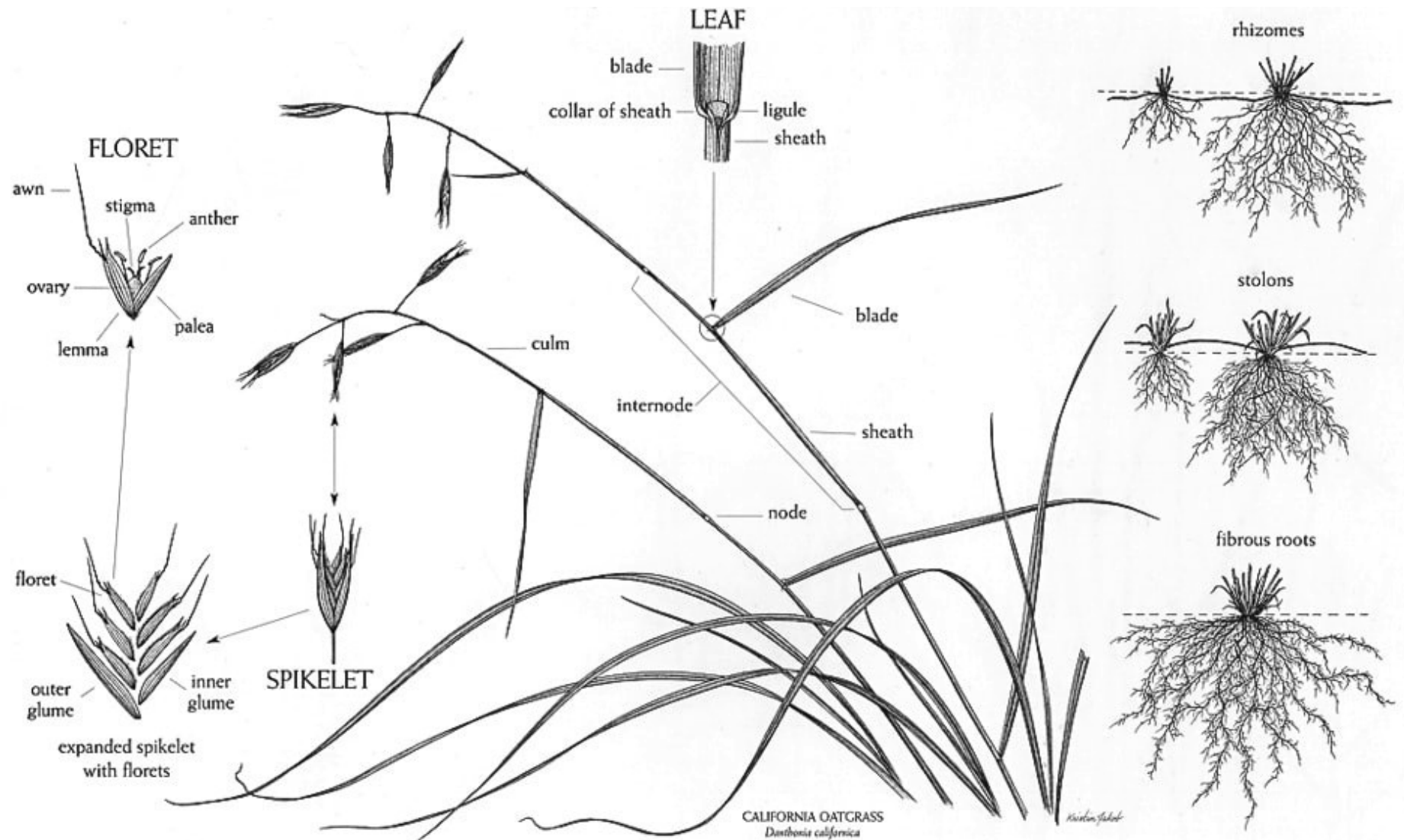
Grass flowers may be bisexual or unisexual. The flowers of wheat, barley, oats, and rye are bisexual; the flowers of corn are unisexual.



Grass fruits, also called grains or caryopses, are unusual among plants in that the fruit wall completely adheres to the single seed.



There is no clear evidence for the geographic place of origin of the grasses. Even fossil remains of grasses do not resolve questions of the origin of the family. The oldest records of grass pollen are from about 60 million years ago, but they did not become abundant until about 30 million years ago.



EXAMPLES OF SAN DIEGO POACEAE

COMPACT BROME
(*BROMUS MADRITENSIS*)



SIXWEEKS GRASS
(*FESTUCA OCTOFLORA*)



RED BROME
(*BROMUS RUBENS*)



SALTGRASS
(*DISTICHLIS SPICATA*)



FOOTHILL NEEDLE GRASS
(*NASSELLA LEPIDA*)



DEER GRASS
(*MUHLENBERIA RIGENS*)