

GOAT GRASS OR WILD WHEAT (*AEGILOPS TRIUNCIALIS*)¹P. B. KENNEDY²

The presence of a mechanically injurious weed in the fields and on the ranges in certain parts of California is of sufficient importance to botanists, agronomists, and stock men to warrant a discussion of its habits, occurrence, distribution and general characteristics

It belongs to the genus *Aegilops* which is a segregate from the cultivated wheats, *Triticum*.

As the species of *Aegilops* are found in the same general region in Europe as the wheats, it is somewhat surprising that they have not long since infested the wheat fields of the United States more generally.

Boissier (1)³ describes 11 species of *Aegilops* as occurring in the Mediterranean region and northern Africa. Rouy (2) recognizes three species in France. In the United States two species occur as alien immigrants.

A review of the literature and the examination of herbarium material of *Aegilops* show that the species are very polymorphous. Rouy (2) describes two subspecies and seven varieties of *Aegilops ovata*. Popova (3) describes nine varieties of *Ae. triuncialis*, six of *Ae. cylindrica*, and three of *Ae. crassa*. According to this author, *Ae. triuncialis* is not affected by rust and has a solid straw, while *Ae. cylindrica*, *squarrosa*, and *crassa* have a hollow straw. The nonsusceptibility of *Ae. triuncialis* to rust infestation corresponds to the durum group of wheats, while the susceptibility of the *Ae. cylindrica* group corresponds to the soft wheats.

The susceptibility or nonsusceptibility of the different species of *Aegilops* to parasitic fungi may be of great importance to those engaged in cereal breeding. The presence of solid or hollow straw as differentiating characters does not appear to be well founded as plants of *Ae. triuncialis* grown in Berkeley produced a well-marked hollow straw. Herbarium specimens from Europe showed a variation from a solid straw to a hollow straw. This character of the straw seems to be inconstant and is due perhaps to environment and age.

The fact that *Ae. triuncialis* is very much at home in hard soil on dry slopes makes it a very undesirable weed as it is apt to spread over large areas very rapidly.

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³Reference by number is to "Literature Cited," p. 1296.