
Hulless barley has been grown in Tibet at least for the past 3500 years. Tibetans use its flour to make tsampa as their staple food and its kernels to make barley wine. In addition, they also use covered barley and wild barley (*Hordeum brevisublatum, H. spontaneum, H. lagunculiforme*, and *H. agriocrithon*) for livestock feeds.

Many landraces have been collected in Tibet from 1952 to 1985. Among them are 3396 six-row hulless, 27 two-row hulless, 69 six-row covered, and 10 two-row covered barleys. The vast majority of them have spring growth-habit, median maturity, relatively high stature, rough awns, and dark-colored (black, purple, gray, green, and carneous) kernels. Some have been screened for resistance to salt, water-logging, and drought, for resistance to barley stripe rusts, barley yellow mosaic virus, barley yellow dwarf virus, and Fusarium head blight, and for chemical composition (protein, lysine, and starch content).

Many wild barley accessions have been catalogued. Among them are 978 *H. spontaneum, 1075 H. lagunculiforme*, and 1052 *H. agriocrithon*. These wild barleys are very distinctive in the following ways. First, 68% of the accessions have dark-colored kernels. At an altitude of 4000 m or higher, all have dark-colored kernels. Second, the great majority of them are of spring growth-habit (99%) and early maturity (78%). Third, almost all of them have long rachilla hairs. Cytogenetic studies suggest that the cultivated barley in Tibet evolved from the following pathway: *H. spontaneum* → *H. lagunculiforme* → *H. agriocrithon* → *H. vulgare*. Some of these wild barley accessions have been screened for resistance to barley stripe and barley yellow dwarf virus, for resistance to salt and drought, and for chemical composition (protein, lysine, and starch content).

*C. hordeum* has been used successfully by Chinese scientists to develop improved cultivars.

The above is a synopsis of this book which consists of six chapters: 1. Production and Ecological Regions of Tibetan Cultivated Barley. 2. Genetic Resources of Tibetan Cultivated Barley. 3. Genetic Resources of Tibetan Wild Barley. 4. Taxonomy of Tibetan Cultivated Barley. 5. Taxonomy of Wild Close Relatives of Barley in Tibet, and 6. Origin and Evolution of Tibetan Cultivated Barley. This book is written in Chinese and carries an English abstract for each chapter and an English caption and headings for each table. This book also includes 133 colorful pictures of fields, plants, and spikes of barley in Tibet and it has 146 references. It is extremely well-written and thus is very easy to read. This book is intended as a scientific monograph and also as a handbook for scientists and graduate students working on barley genetic resources and breeding.

Why *H. spontaneum* in Tibet has such a high percentage (>50%) of hulless genotypes is perplexing. Hulless genotypes most likely are at a disadvantage in competing with covered genotypes because hulless genotypes generally are associated with poor emergence, short plant height, and low grain yield. Perhaps, the hulless trait is related with seed dissemination. According to this book, black barley is commonly grown in Tibet because of its resistance to biotic and abiotic stresses. Interestingly, many black landraces also exist in Syria. These suggest that more studies are needed to better understand the role of pigments in feed quality and stress resistance in barley. Almost all of the wild barley accessions in Tibet have long

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