the Aberdeen and Moscow bulk at Aberdeen in 1935. These selections were evaluated at Aberdeen for several years, and the superior ones were distributed to interested experiment stations in the United States and Canada. Selection 36Ab6127 (Moscow bulk) proved superior in Alberta, Canada, and in Arizona, whereupon it was named Harlan and released to growers in these two areas in 1952 and 1958, respectively. Harlan has performed best on irrigated land.

Harlan is a six-rowed spring variety of early to midseason maturity. A detailed description has been published. It has produced high yields, has a relatively short stiff straw, and resists lodging. The kernels are large. Harlan is grown as a feed barley in Alberta, Arizona, and on limited acreages in Montana, Idaho, and Oregon. It is not used in malting.


ALPINE AND VELVON 11 BARLEYS
(Reg. Nos. 68 and 69)

R W. Woodward

'Alpine' barley (Hordeum vulgare L. emend. Lam.), CI 9578, is a six-rowed, rough-awned facultative winter barley developed jointly by the Utah Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. Alpine was a selection from the cross (Colorado 3063 X 'Winter Club') Sel. X 'Purdue 21'. The original cross and subsequent selections were made by R. W. Woodward at Logan, Utah. Selection B219-70 was named Alpine and released in Utah in 1956 because of its superiority in winter hardiness and yield compared to Winter Club, the only other adapted winter barley variety for that area.

In Utah tests over a 5-year period, Alpine showed an average winter survival of 61% and yielded 49 bushels per acre, compared to 34% survival and 38 bushels per acre for Winter Club.

Alpine has a short dense spike, with small, light blue kernels, long-haired rachillas, and hairy glumes. The hairy glumes result in an irritating fuzz, making Alpine a disagreeable barley to thresh. Alpine is often difficult to roll for feed. A detailed description has been published.

Alpine is relatively late maturing, has tall but stiff straw and is somewhat resistant to powdery mildew and to those smuts found in Utah. Because of its facultative character, Alpine can be grown successfully from either fall or early spring seedling.

Alpine is grown extensively in Oregon and Utah, and to some extent in Washington and Idaho, generally under irrigation or in higher rainfall areas in these states. Foundation seed is maintained by the Utah Agricultural Experiment Station.

Velvon 11 (Hordeum vulgare L. emend. Lam.), CI 7088, is a six-rowed, smooth-awned spring barley, developed jointly by the Utah Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. Alpine was a selection from the cross (Colorado 3063 X 'Winter Club') Sel. X 'Purdue 21'. The original cross and subsequent selections were made by R. W. Woodward at Logan, Utah. Velvon, released to growers in 1943, is grown to a limited extent in the United States. Velvon was quite popular due to its awns, hairless glumes, high yield, and stiff straw, and many sterile florets and was not so resistant as the 'Winter Club' loose smut (Ustilago nuda [Jens.] Rostr.).

Velvon 11 is a composite of 14 lines, selected both in Colorado (CI 6109) which were superior for yield, for strength of straw and for their having fewer sterile florets. Velvon 11, released in 1943, is grown to a limited extent in Utah and Idaho and on small acreages in Wyoming, Oregon, Nebraska, Kansas, and northwestern Sask.

Velvon 11 is midseason in maturity, midtall, and has aleurone kernels with short-haired rachillas. A detailed description has been published.

A small quantity of foundation seed of Velvon 11 has been released at intervals by the Utah State Experiment Station.

COLSESS, MORAVIAN, MUNSING, AND OTIS BARLEYS
(Reg. Nos. 70, 71, 72, 73)

D. W. Robertson

'Colsess' barley (Hordeum vulgare L. emend. Lam.), CI 10107, was originated as a selection from the cross 'Coast' (CI 2792) X 'Sucss' made in 1911 by D. W. Frear of the Colorado Agricultural Experiment Station. From 1914 to 1925 selections were made at Colorado by members of the Agronomy staff of the Colorado Agricultural Experiment Station. Selection 30-0-2-5-x, later named Colsess, was released in 1925. Colsess was released in Colorado because of its superior yield, strength of straw, and resistance to loose smut. A detailed description has been published.

Colsess is a six-rowed, medium early, stiff-strawed, hooded, smooth-awned spring barley. Colsess has a deep yellow color with purple auricles. The head is erect at maturity and the kernels are blue aleurone. A companion variety, 'Munsing', has been published.

Colsess is grown to a limited extent in the high Colorado as a feed crop, and is used under irrigation as a companion crop for alfalfa.

'Moravian' (Hordeum distichum L. emend. Lam.), CI 7559, was introduced from the Province of Moravia, Czechoslovakia, to the Adolph Coors Co., Golden, Colorado, in 1949. The strain was tested by the Colorado Agricultural Experiment Station and was found to yield better than the original selection. The selection was made several years prior to 1945. The selection was grown and purified by D. W. Robertson of the Colorado Agricultural Experiment Station and increased, with foundation seed forwarded to the Adolph Coors Co. in 1954. The new strain has replaced the original strain. About 55,000 acres of Moravian is grown yearly for malting by the Coors Co., and there is a limited acreage grown in Montana.