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 36A65127 (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 'Purdoe 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 hardness and yield compared to Winter Club, the only other adapted winter barley variety for that area.

In Utah tests over a 3-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 seeding.

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. Velvon 11, released in 1943, is grown to some extent in Oregon, Nebraska, Kansas, and northwestern Saskatchewan.**

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

Velvon 11 is midseason in maturity, mid-tall, and has white-aleuroned kernels with short-haired rachillas. A detailed description has been published.

A small quantity of foundation seed of Velvon 11 is produced 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 2792, originated as a selection from the cross 'Coast' (CI 2791) X 'Success' made in 1911 by D. W. Frear of the Colorado Experiment Station. From 1914 to 1925 selections were made from this cross by members of the Agronomy staff of the Colorado Experiment Station. Selection 30-0-2-5-x, later named Colsess, was made by D. W. Robertson in 1920. Colsess was released in 1925, because of its superiority in yield, strength of straw, and resistance to shattering.**

Colsess is a six-rowed, medium early, stiff-strawed, hooded, spring barley. Colsess has a deep yellow color when ripe, short-haired rachillas, and purple auricles. The head is erect at maturity and the kernels are blue aleuroned. A complete description has been published.

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

**'MORAVIAN' (Hordeum distichum L. emend. Lam.), CI 10107, was introduced from the Province of Moravia, Czechoslovakia, by the Adolph Coors Co., Golden, Colorado, in 1949. This introduction was tested by the Colorado Agricultural Experiment Station and was found to yield better than the original selection (CI 7539) made several years prior to 1945. The selection was reselected and purified by D. W. Robertson of the Colorado Experiment Station and increased, with foundation seed forwarded to the Adolph Coors Co. in 1954. The new strain has replaced the original selection. About 55,000 acres of Moravian is grown yearly in Colorado for malting by the Coors Co., and there is a limited acreage in Montana.**
