

FOUR NEW FEED BARLEY VARIETIES FOR THE WEST

Two brand new feed barley varieties bred by researchers at the Alberta Field Crop Development Centre (FCDC) in Lacombe were featured at the field day there this past summer. Chigwell, a six-row variety licensed to SeCan, and a yet-unnamed two-row variety to be released in January, will undergo seed multiplication in 2009 and 2010 and should be commercially available in 2010. In the meantime, decent growing conditions throughout most of Alberta this past summer have secured the seed supply for two other up-and-comers, Sundre and CDC Cowboy.

Sundre

Sundre is a husky six-row, smooth-awned barley bred at the FCDC in Lacombe that became commercially available in 2008. It was registered in 2005 and released for distribution to Mastin Seeds of Sundre, Alta.

Owner Bob Mastin had proposed a concept for a low-cost distribution system that caught the attention of the breeders. With low levies and high yields of a single variety to reduce per-bushel costs, seed growers in his network are making every effort to keep the price for this new variety in line with popular older varieties. He expects this will encourage producers to take advantage of purchasing new seed from professional seed growers each year, rather than saving their own seed.

Dave Solverson at Camrose is a beef producer and Sundre grower. He chose to grow Sundre for the first time in 2008 because of its high yield and smooth awn, which is important for silage production. He was in a pocket of drought last summer with just-in-time showers for the crops. Even at that, he was happy with his Sundre barley yields of about 80 bushels per acre on newly broken sod and about 105 bushels on clover stubble. The crop did lodge a bit in the moist areas, which he figures may have been due to fairly high fertility in the field. He sowed the crop with 50 pounds of nitrogen per acre, however, the field had received an application of manure the previ-



Sundre



Chigwell

ous year. He plans to plant most of his barley acres to Sundre in 2009 and will have seed for sale.

At Bowden, Gary Anderson faced a challenging growing season. The wet spring delayed seeding, then a shifty August frost touched two fields of feed barley. Here he harvested in the neighbourhood of 80 to 90 bushels per acre, but it really nipped the test weight, which came in at about 44 pounds per bushel. Of the two fields that didn't get touched by frost, the poorest went 105 to 110 bushels per acre and the



TR0667

other went 115 to 120 bushels per acre. The test weight on these fields was 53 pounds per bushel, the same as his Vivar, which yielded about 90 bushels per acre. The highest yield was on a field that he had fertilized more heavily with the intention of planting CPS wheat. Even though the crop went down, he says it wasn't too hard to swath because of the heavy stand. The sensational plant growth would make Sundre an excellent choice for silage, he adds.

Dale Witdouck is a seed grower at Iron Springs in southern Alberta. He

chose to grow Sundre because it's a good fit for his customers in feedlot alley. The smooth awn — a preference for silage — and the large head with big, plump kernels are the standout features of this variety. Grain yields were 140 bushels per acre on irrigated land the first year he grew Sundre. The crop that didn't get hit by hail in 2008 produced 130 bushels per acre, so he'll still have an adequate supply of seed for 2009.

Mastin says that Sundre is a big, busy plant and does have a tendency to lodge if heavily fertilized. He recommends a moderate broad-based fertilizer package so the crop isn't lacking anything.

The technical bulletin for Sundre barley states that it out-yields the high-yielding six-row varieties Vivar and AC Lacombe. In field trials, it yielded more than Vivar in all Alberta growing zones, with yields similar to AC Rosser and exceeding AC Lacombe by 5 per cent. It has multiple gene resistance to scald and is resistant to covered smut and false loose smut, with some resistance to net blotch and stem rust. It is susceptible to septoria, loose smut, common root rot and fusarium head blight.

CDC Cowboy

This two-row, hulled barley bred at the Crop Development Centre in Saskatoon is licenced to SeCan. It is making a name for itself in Alberta as a biomass barley.

Ben Stohl of the Twin Rivers Colony near Manning grew Cowboy for the first time in 2008 with seed purchased from Peace Pedigree Seeds at Fairview. There was no shortage of precipitation in this part of the country, which received 12 inches of rain. The crop that was harvested for grain went 95 bushels per acre with a 54-pound test weight. On silage fields, Cowboy yielded 17 tons per acre. Normally he expects about 12 to 14 tons per acre on barley silage. He applied nitrogen at the rate of 90 pounds per acre.

Of equal importance was that the heavy crop stayed standing and it matured nice and early. He grew Xena, Conlon and Ponoka barley as well and says Cowboy matured way earlier than the rest.

Needless to say he was very impressed with the production and has 8,000 bushels of seed booked for next year. About 2,000 acres of Cowboy will be grown for silage.

Darrel Holmstrom of Killam is a seed grower and beef producer. He notes that beef producers are moving away from Xena because they want more straw on fewer acres so they don't have to bale up the whole farm, so to speak. If you can get three bales per acre versus two bales per acre, at \$35 per bale, that's a good return on baling, he says. If you're only concerned about grain yield, then you may want to look at another variety, but when you need both grain and straw, Cowboy delivers.

Holmstrom is more apt to swath Cowboy because of its straw length — about a foot longer than the other varieties he grows — rather than letting it stand until its dead ripe for straight combining. This way, there's a bit of green left in the straw, which makes good fall swath grazing for the cows.

He sowed his crop with 80 pounds of nitrogen per acre, however, producers who have cut back into the 50-pounds-per-acre range have still had tremendous crops. In drier areas where beef producers might expect silage yields of about seven tons per acre of regular barley varieties, they are realizing about 11 tons per acre with Cowboy.

SeCan's technical bulletin states that CDC Cowboy is an excellent dual purpose barley that is especially adapted to low input systems, lighter soils or drought stress conditions. Dry matter forage yields have been tested at 107 per cent of AC Lacombe and AC Ranger. Grain yield is 92 per cent of AC Lacombe, while the grain yield of AC Ranger is 15 per cent more than AC Lacombe. Cowboy's rating of 93 per cent plump kernels is unsurpassed in field trial data. CDC Cowboy is resistant to stem rust, surface-borne smuts and fusarium head blight, but susceptible to scald, spot blotch and loose smut.

Chigwell (BT577)

This six-row, hulled feed barley features a smooth awn and is set to make a good multi-use feed barley in Western Canada once it becomes commercially available.

Field trials show that Chigwell has relatively high grain yield and its biomass yield for greenfeed and silage production is similar to Vivar and AC Lacombe, and higher than Vivar under irrigation. In grain yield, it out-yielded Excel and Legacy in all but the eastern black and black soil zones, where yields were similar.

Days to maturity, test weight and

per cent plump are similar to the checks. Chigwell is of medium height, about four centimetres taller than Vivar and AC Rosser and four centimetres shorter than AC Lacombe. It shows good lodging resistance, similar to Vivar and better than AC Rosser.

Chigwell comes with a fair disease resistance package. It's rated as resistant to surface-borne smuts, moderately resistant to scald, spot blotch and spot-form net blotch, moderately susceptible to loose smut, but susceptible to common root rot, fusarium head blight, septoria and leaf blotch. It has an intermediate rating for stem rust.

Feed quality analysis: total fibre is 18.8 per cent; digestible energy 3,147.3 kcal/kg; protein digestibility 70 per cent; starch content 60.5 per cent; protein content 11.6 per cent, which was higher than Vivar and lower than AC Lacombe.

TR06673

This two-row, rough-awned feed barley will be named in January by whomever acquires the licence to distribute it. According to the technical bulletin, this line has excellent disease resistance. Combined with good grain yield and feed quality, it should make it a superior feed barley in the scald areas of Western Canada.

Test data indicate that the grain yield of TR06673 is more than AC Metcalfe, but slightly less than Xena in all soil zones. Its test weight, kernel weight and per cent plump are higher than AC Metcalfe and similar to Xena and Seebe. Its height and the biomass yields for silage production are similar to that of Seebe, however it has better lodging resistance. It matures four days earlier than Seebe and earlier than Xena.

TR06673 shows scald and stripe resistance similar to that of Seebe, but it comes packaged with a 10 per cent higher grain yield and equal biomass for silage production. Like Seebe, it has good resistance to surface-borne smuts and fusarium head blight. It is moderately resistant to the spot form of net blotch and the non-QCC races of stem rust. It is susceptible to common root rot, loose smut and septoria.

Feed quality analysis: total fibre of 18.9 per cent; digestible energy of 3,092.9 kcal/kg; protein digestibility of 71.6 per cent; starch content of 61.74 per cent; protein content of 11.8 per cent.

— Debbie Furber