

Spelt.

[Written for the "Farmer's Advocate," by S. A. Bedford, Supt. Exp. Farm, Brandon, Man.]

This grain is attracting considerable attention at present, and larger areas are being sown each year. Many farmers who grew it for the first time last year speak well of it, and it is evidently here to stay.

Although a true wheat, it differs very materially from the wheat in general cultivation, such as our Red Fife. The chaff, instead of separating readily from the kernel when run through a threshing machine, is firmly adherent and usually a small per cent. of the chaff is removed. For that reason it is used exclusively as a stock food, either whole or ground into meal.

It is found that the straw of this grain is remarkably free of rust even during unfavorable seasons. This no doubt accounts largely for its palatableness, stock generally preferring it to other wheat straw. On rich land the straw has a tendency to lean somewhat, but it seldom lodges, and the binder has no difficulty in cutting it. If allowed to become too ripe before cutting, it does not shell like other grain, but the heads break off and fall to the ground. Some years the loss from this cause is quite heavy, and for that reason it is a good plan to cut the crop on the green side and thus avoid risk of loss; this plan will also give a brighter sample of straw. Apparently the grain matures well in the stook if cut a little on the green side.

During the past two years some interesting experiments have been undertaken with this grain on the Experimental Farm, a summary of which will be found herewith.

Tests of thick and thin sowing were made during both 1901 and 1902, and with practically the same result. The fairly heavy seeding gave the largest return.

Variety.	Drill set for per acre.	Date sown.	Yield.	
			Ripe.	per acre.
Spelt	1 bush.	May 15	Sept. 6	33.20
"	1 1/4 "	" "	" "	37.20
"	1 1/2 "	" "	" "	46.00
Spelt	1 bush.	May 6	Aug. 20	42.20
"	1 1/4 "	" "	" "	46.40
"	1 1/2 "	" "	" "	52.20
"	1 3/4 "	" "	" "	54.40
"	2 "	" "	" "	50.20

During the year 1901, a comparison was also made between the yield of spelt and other kinds of grain, sown at the same time, and under the same conditions, with the following results:

	Days in maturing.	Yield of grain per acre.
Spelt wheat	106	3,080 lbs.
Red Fife	105	1,720 "
American Beauty oats	105	2,320 "
Mensury barley	95	2,320 "

In the same year summer-fallow yielded 51.20 bushels per acre, and unplowed stubble 48.40 bushels. Last year a test was made of early and late sowing, with somewhat negative results, and this series of experiments will have to be repeated before any conclusions can be reached.

Good results have been obtained from feeding the threshed grain to fattening steers and other horned stock, but so far no experiments have been undertaken in feeding it to swine. Owing to the large proportion of husk, I should consider it dangerous food for newly-weaned pigs, as they are easily injured from this cause. The following is a summary of results obtained from feeding fattening steers with chopped spelt, compared with the same number of steers fed with a mixture composed of one-third each of wheat screenings, oats and barley, valued at the same price per pound as the spelt:

	First cost	Value of steers. of feed.	Price sold for.	Profit.
2 steers fed on spelt.	\$81.31	\$23.41	\$129.26	\$24.54
2 " " mixed grain.	81.12	23.41	125.35	20.82

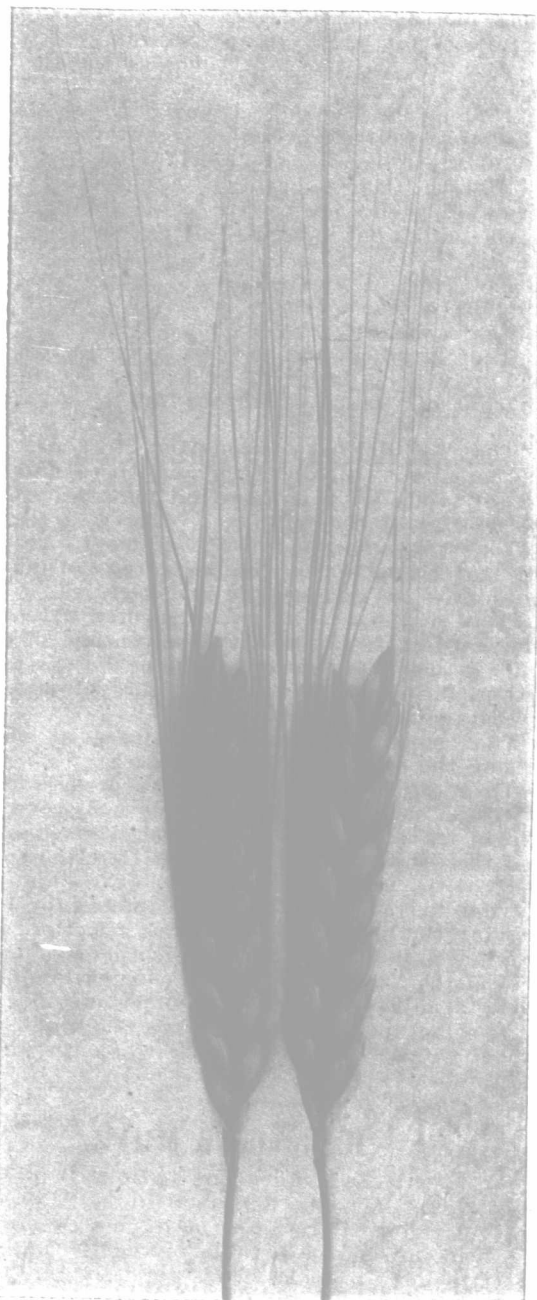
During the winter of 1901-02, comparative tests were made between Brome grass hay, Western rye grass hay and spelt straw [the two kinds of hay were valued at \$5.00 per ton, and the spelt straw at \$2.50 per ton], with the following results:

	First cost	Value of feed per steer.	Price sold for per steer.	Profit.
Steers fed brome hay.	\$43.26	\$13.77	\$76.87	\$19.84
Steers fed rye hay.	43.22	13.58	76.81	19.81
Steers fed spelt straw.	42.90	11.01	73.69	19.78

Or in other words, the spelt straw was worth as fodder one-half as much as either of the two varieties of hay.

Progress of British Columbia.

British Columbia, from its contiguity to the Pacific Ocean, enjoys, for the most part, a temperate climate, altogether distinct from that of any other portion of the Dominion of Canada. It has an area four times as large as that of the British Isles and twice the size of either Germany or France. The mean temperature of what is called the lower mainland is about the same as that of the Midland Counties of England, but with greater rainfall during the winter months. The grass remains green all the year round, and clovers, both red and white, although not indigenous to the country, seem to have found a habitat most congenial to their production in the greatest superlative abundance and quality. The simple fact that the goat and the sheep are natives of the Province and wander in large flocks along the mountain slopes would warrant the assumption that Providence intended British Columbia for a stock country, otherwise these denizens would not be there. The quality of the products of the dairy are superior to that of any other part of Canada, and the industry can be continued all the year round without let or hindrance from frost or snow. The humidity of the climate is most favorable to the growth of roots



TYPICAL HEADS OF SPELT.

of all kinds, which are so essential to dairying. The production of hay on the alluvial lands in the Fraser valley is abnormally heavy, as three tons to the acre is not an unusual crop. All fruits of the temperate zone grow freely in British Columbia, but attain the greatest perfection in the interior, and more especially in the Okanagan Valley in the vicinities of Kelowna and Vernon. It is stated on good authority that the Earl of Aberdeen has shipped \$25,000 worth of apples this year from his ranch in the above named valley, and it must be remembered that the trees are very young and only just coming into productive bearing.

Farming in B. C. is only in its infancy, which renders it necessary to import 95 per cent. of all the agricultural products required for the sustenance of the present population, which is mostly congregated in the coast cities and principally engaged in mining, lumbering and fishing. New-laid eggs are usually 50 and 60 cents per dozen in the winter, and fresh butter 35 cents per pound. Useful dairy cows generally run from \$50 to \$75 each. It is estimated that in 1900, \$1,000,000 worth of pork was imported. Recent statistics are not available, but it is only reasonable to suppose that the imports have increased in proportion to the population.

On the lower mainland there are numbers of more

or less improved farms of 160 acres each which were mortgaged and abandoned for the more siluring gold-mining craze which proved so disastrous, not only to individuals, but to the Province at large. Many of these farms can now be purchased for \$1,000 each, with paying from a tenth to a fifth cash down, while the balance may usually remain on interest at six and seven per cent., according to circumstances.

In the Okanagan Valley the climate is altogether dissimilar to the coast, being much drier both in summer and in winter. Winter wheat is grown in this section, and the yield is about a ton, or 33 1-3 bushels, to the acre. A considerable quantity of tobacco is now being grown in this valley. Hops do very well indeed in B. C., especially in the Squamish Valley, about 35 miles north-west of Vancouver. In many parts of the interior, cattle ranching on an extensive scale is being carried on, and found to be very profitable to those engaged in it. The price of farm produce is far higher in British Columbia than any other part of Canada, and will continue to be so for many years to come, especially in the mining districts.

Sir Thomas Shaughnessy, when at the Coast last summer, declared that British Columbia would never have solid prosperity until she developed her agricultural resources, which have been almost entirely neglected by the Government.

It is estimated that purely agricultural products to the extent of \$6,000,000 annually have to be imported.

The total population of British Columbia is about 175,000, including 55,000 Chinese, Japs and Indians—a balance of 120,000 whites. Thus, it will be seen there is an enormous field for the development of agriculture on a profitable scale to fill the home demand, which latter is largely on the increase, as the coast towns contain about two-thirds of the total white population, who are non-productive in an agricultural sense, and, as things exist to-day, are almost entirely dependent for food on the importation from foreign countries, principally the United States and Australia.

These simple, plain and, I trust, practical facts are worthy of consideration by men whose business in life is agriculture, an occupation which has always been admitted in all nations from the earliest recorded times to be the most honorable of all and the most important. Without agriculture commerce must die of inanition and our boasted civilization descend to the primeval state of man, a truism which no sane person will attempt to deny.

The remarks of the President of the C. P. R. on British Columbia are so pertinent to the situation that I cannot refrain from quoting them still further: "The fertile valleys of the Province have been neglected. British Columbia should to-day be a great agricultural Province. The people are, of course, to blame for this neglect. They have shown a tendency to insist upon the Government doing things they should do themselves. They have wanted bonuses for railways, and would not build without them, and the Government has been directing its efforts in that direction instead of the development of agriculture. Mining, manufacturing, and lumbering and fishing are great sources of wealth in that Province, but such industries require agricultural backing to give them stability. The wealth of the towns needs to have the wealth of the country to draw upon. The present industrial depression is due, in a measure, to some of the labor legislation that the Province has passed and to the lack of agricultural development."

I have made the practice and science of agriculture the study of my life, both in England and Canada, not as a theorist, but as a practical farmer, being thoroughly conversant with every detail of the farm, in all branches of the business, and the impression that I have formed is that some day British Columbia will be the most attractive Province in Canada to those who understand mixed farming in the truest sense of the word and are prepared to educate their minds by studying the higher branches of the business, combining practice with science as hand-maidens.

The benign climate of British Columbia will doubtless commend itself to the consideration of those who are not enamored with the frost and snow which prevail east of the Rocky Mountains with undeviating certainty for almost six months of the year, coupled with the intense, debilitating heat of the short summers. It has been my object to lay the plain, unvarnished facts before your readers, without embellishments of any kind, knowing as I do full well, from long experience, that to mislead a man by glowing false statements to break up his home and travel to a far country is a serious matter, especially to the man who has been misled.

In conclusion, I would simply say to those who are desirous of leaving their present surroundings, that British Columbia offers advantages that cannot be obtained in any other part of Canada; also, that the home demand for all kinds of farm produce is greatly in excess of the supply, and likely to be so for many years to come, hence the high prices they command. The imperative demand for the home market is more permanent than that of export, and being assured renders the farmer more independent and certain of fair returns for his skill and labor. In addition to which he sells his produce almost direct to the consumer, thus saving extortionate intermediate profits and charges which apply so frequently to the export trade in every country.

I. G. V. FIELD JOHNSON.