Not only are Manitoba farmers growing more crops than ever, but more cultivars within a crop type

# Manitoba crops have never been more diverse

by Allan Dawson, Farmers' Independent Weekly

There's safety in numbers.

Variety is the spice of life.

And we all know not to put all of our eggs in one basket.

It turns out Manitoba farmers are heeding that advice too. Not only are they growing more crops than 10 years ago, there's more diversity within crops, according to data collected by the Manitoba Crop Insurance Corporation and available through Manitoba's Management Plus Program (www.mmpp.com)

That's good for farmers and for crop insurance.

"There's definitely an advantage to diversifying your cropping operation so that you don't have the same thing everywhere," says University of Manitoba wheat breeder Anita Brulé-Babel. "Diversity can be important even for pricing because it's very difficult to predict where the prices are going to be when you're making cropping decisions."

Predicting the weather is just as hard as forecasting prices. The weather that suits one crop may not be best for another. Canola can take some rain in the fall, but the same rain will downgrade wheat or barley.

Oats tend to yield best during summers that aren't too hot, while corn needs lots of heat to do well. Farmers that grow both the same year are hedging their bets.

*University of Manitoba wheat breeder Anita Brulé-Babel says farmers can reduce their risk by growing different crops and different varieties of the same crops.*

And it's the same when farmers grow different varieties of the same crop. One variety might be better at resisting a certain disease, or do better under wet or dry conditions.

Doug Wilcox, manager of agronomy and program development for crop insurance, says there's a trend to less yield variability.

"My suspicion is that lower yield variability that we're seeing now relative to 20 years ago is due to the fact that there are a lot more varieties out there," he said.

"Greater crop diversity should result in lower risk to crop insurance because if one cultivar is disease susceptible it will be a smaller acreage and therefore we should have less losses."

In 1992 Manitoba farmers insured 34 different crops out of 37 covered under crop insurance. In 2002 the list had grown to 45. Not only are farmers growing more crops, but also they are growing a greater number of different varieties (cultivars) within a crop kind. For example, in 1992 Manitoba farmers reported growing 11 different varieties of wheat to crop insurance, last year they reported growing 24. The most dramatic change has been in canola. In 1992 farmers grew 17 different canolas; in 2002 there were 160. The number of barleys, flax and fall rye have doubled since 1992, while oat varieties have tripled to 21. In 1992 there was just one winter wheat variety in the province — Norstar. In 2002 there were six.

> *"We're not seeing the same scale of the adopting of single varieties that we saw in the 70s and early '80s where we had 70 to 80 per cent of the acres being one variety."*
>
> *— University of Manitoba wheat breeder, Anita Brulé-Babel*

The pattern doesn't apply to all crops though. In 1992 there were four varieties of potatoes grown in Manitoba under irrigation and the number was unchanged in 2002. Moreover, one of them — Russet Burbank (Gem) — which accounted for the most acres in 1992 and 2002, has been around since 1873.

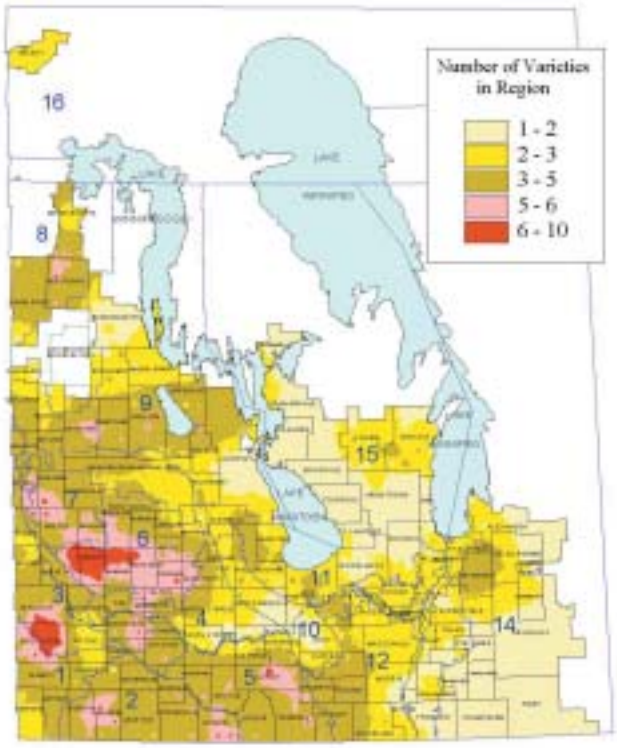
## Spring wheats more diverse

There are more hard red spring wheats to select from and they're not as closely related as they once were, said Brulé-Babel.

"I can think back to the Katepwa (wheat) era when a lot of the new varieties were essentially small improvements with new genes just brought in through backcrossing," she said. "The new breeders diversified their approach to breeding using a broader genetic base and it's not just a backcrossing program which they tended to be in the early years. They're not as closely related as they used to be and are somewhat distinct."

There are several reasons why farmers are growing more varieties. One is that they can. There are more varieties available now than 10 years ago. The seed business has become more commercial, especially with crops like canola and peas, with many different companies in the business and competing for market share.

## Average Number of Red Spring Wheat Varieties Grown / 2002




Even wheat, which remains largely in the public purview, has seen a shift. Agriculture Canada remains the big player, but its wheat breeding comes from two different streams — Winnipeg and Swift Current. The University of Alberta, the University of Saskatchewan's Crop Development Centre, the University of Manitoba and Agricore United are also in the wheat breeding business. And all are encouraged by seed companies anxious to get their hands on the next best wheat.

"You would develop another variety that was a little better than the previous one and that was good enough (in the past)" Wilcox said. "Now in a competitive environment with so many players, the sales game is going on as much as anything."

Changes to Canada's registration system have contributed to the increase in varieties, Brulé-Babel said. The canola industry was the first to abandon the requirement that new varieties be better than the check before being commercialized. Wheat has adopted the "equal to" model which has given rise to the "me too" variety. With more choices farmers may find a variety that's better suited to their farm.

Economics are another factor. Farmers are trying different varieties to see which ones perform best on their land.

"It could be farmers are planting two or three different (wheat) varieties for different seeding times or they want different flowering times to try and spread their risk a bit (to avoid fusarium head blight)," Brulé-Babel said.

Meeting customer demand also affects what farmers grow.

"There are definitely more IP (Identity Preserved) programs going on with buyers wanting varieties for specific purposes," she said.

One of the best known in Manitoba is run by the British bakers, Warburtons.

"You're probably also seeing farmers diversifying their markets," Brulé-Babel said. "They are picking varieties for where they want to target their marketings."

One variety might be better suited for Canadian Wheat Board, domestic feed mill or an ethanol plant

## A regional breakdown

The Warburtons effect can be seen in the RM of Hamiota. The municipality stands out in a colour co-ordinated map where "red" shows the areas where farmers are growing between six and 10 different wheat varieties. (See map). Of the eight varieties reported to crop insurance in 2002, at least three are grown specifically for Warburtons, said Hamiota-area seed grower Ron Knight.

In 1992 in the RM of Hamiota there were just four wheats reported to crop insurance. At 38,000 acres, Katepwa dominated the field. Ten years later AC Barrie led the way, but with only 10,000 acres.

"We're not seeing the same scale of the adopting of single varieties that we saw in the '70s and early '80s where we had 70 to 80 per cent of the acres being one variety," Brulé-Babel said. "I suspect that's because there are more varieties there."

Knight also notes there are always a small number of acres of new varieties being grown that make the wheat list longer.

Competition amongst seed growers and grain companies, some with a wheat specific to them, is another reason why there are so may different wheats grown in the area, said Hamiota ag rep John Patterson.

"Growing different varieties does reduce risk," Patterson said. "The earlier maturing varieties have generally had less problems than the later ones. Maybe that's part of it. Guys trying to spread the risk are growing some different days to maturity varieties."

Oak River seed grower Cam Henry sells five different hard red spring wheats. Disease pressure is slightly lower in the area so farmers can grow more varieties than in the Red River Valley where strong disease resistance is a prerequisite, he said.

"Everybody is also looking for the next new thing," Henry added.

### Number of cultivars, by crop, grown in Manitoba

| YEAR | WHEAT | CANOLA | BARLEY | OATS | FLAX | RYE |
|---|---|---|---|---|---|---|
| 2002 | 24 | 160 | 47 | 21 | 25 | 8 |
| 1992 | 11 | 17 | 21 | 7 | 9 | 4 |

Source: Manitoba Crop Insurance Corporation, Management Plus Program

The 2002 map paints much of the Red River Valley yellow, which represents two to three wheat varieties. Most of the province is a light brown representing three to five varieties.

Searching through the Management Plus data reveals in 2002 the RM of Hanover in the eastern Red River Valley there were only two wheats reported as grown to crop insurance — the same as in 1992, although the varieties were different in 2002. Again, the area's susceptibility to disease limits the number of varieties that are suited.

In the RM of Lorne, in the south-central part of the province, there were 10 different varieties of wheat insured in 2002 compared with six in 1992. But the jump in canola varieties has been a lot bigger going to 18 from seven.

Farmers have never had so many crops or varieties to choose from. *Yield Manitoba*, *Seed Manitoba* and Management Plus can assist in separating the wheat from the chaff.