The Year That Was - 2002

"Even God cannot change the past"

How do we plan for droughts? Should we have been more cautious? Were there signs that we did not recognise, accept or act on?

When we think back on this year, and compare it with other years that may have begun in a similar fashion, but turned out completely different, there is no clear answer to these questions. It is easy to make decisions in retrospect. Many farmers believed that their crops still had potential as late as September, or even October for those in the south, even though Growing Season Rainfall (GSR) was in the lowest 10% of all years.

The fact is that 2002 will go down as one of the worst droughts in history, similar to 1902, 1914, 1929, 1943-4, 1967 and 1982. On these figures, we must expect to experience one of these droughts every fourteen years. How we do that often depends on the previous seasons and the prices received during that time. Unfortunately for some farmers in the eastern Mallee and central Wimmera region, drought and frost have meant that 2002 was another year during which little or no crop was produced.

For history's sake, here is a record of what happened in 2002.

The lack of significant rainfall between October 2001and April 2002 meant that there was very little plant available sub-soil moisture at sowing. Summer rainfall generally varied between 20 and 80mm across the Mallee and Wimmera district. As would be expected with low summer rainfall, soil nitrate levels were also low.

Despite the lack of rain, farmers were keen to capitalise on the high prices being offered for grains and livestock. Most farm plans continued to aim at maximising production by maintaining the area planted, the diversity of crops grown and suitable application of inputs. Confidence was still high in April, despite the probability of an El Nino development being twice normal, as forecast by the Bureau of Meteorology.

Sowing started for a fortunate few in the northern Mallee in mid-April after a localised rain. The rest of us in the Mallee and northern Wimmera were unable to sow into moisture until we received a week of showery rain in mid-May. The next opportunity for sowing occurred in mid June after a promising 10 to 20mm of rain. The damage was now done. The crop was in!

Some farmers may draw some solace in the fact that they decided to substitute wheat for canola, barley for pulses and in some cases not to sow their entire crop because of the unconvincing nature of the season. As may be expected with a dry start, direct drilled crops and the use of press wheels helped germination and establishment.

For many, that was the last involvement with the cropping program until wind forced cultivation to prevent erosion in October. The common limitation to crop growth was the soil type and rainfall interaction. The sandy soils of the Mallee and the red soils of the Wimmera performed better than the clay loams and black self-mulching soils. This was due to the difference in the amount of water needed to wet the different soils. The wilting point of mallee sand is 60mm, clay loam 160mm, red Wimmera clay 160mm and black self mulching soil 230mm.

Fallowing once again helped some crops survive. Yields on fallow paddocks were not exceptional but it was better than no crop at all.

Just to rub salt into the wound, some farmers in the Wimmera experienced another frost at flowering, in some cases for the sixth year in a row. As a result, very few pulse crops were harvested.

As is the case in every drought, the greater the amount of nitrogen applied, the greater the negative effect on yield. Some farmers claimed that as little as 40 kg/ha of urea caused yield reductions.

Most Wimmera and some Mallee farmers applied most of their herbicides. One of the most surprising aspects of the drought was that many weeds either failed to germinate or died before they could set seed. Little Indian-Hedge mustard germinated, and in some cases wild radish, annual ryegrass and even Brome grass failed to set seed.

The only time when any quantity of significant green feed was available for livestock was in July. Those who lambed then were able to at least allow ewes to mother lambs without feeding grain. From August onwards, little feed was available for sheep and most farmers decided to sell stock while prices remained high. Considering the extent of the drought across Australia, and the number of sheep for sale, it is amazing how sheep prices remained high. The good season south of the Divide in Victoria was one factor in the price stability.

Those farmers who still like sheep were well rewarded this year in both meat and wool returns. Lamb and mutton prices were at record levels during the autumn, reaching as high as $4/kilo for lamb and $2/kilo for mutton. Wool had finally seen the end of the wool stockpile and prices showed how reduced production increases price. The average 21 micron indicator during autumn sat around 900c/kilo clean and rose in the spring by about 400c/kilo as a result of the drought and dramatically reduced livestock numbers.

As has been the case in almost every drought, some areas seem to get extra rain which allowed them to survive more effectively than others. For us, the region south of the Western highway and West of Horsham, a pocket north of Swan Hill and some lucky farmers West of Birchip again achieved reasonable yields. In fact some crops grown on very sandy soils achieved remarkable yields considering the GSR (1.6t/ha wheat on 80mm GSR)

Gale force winds seem always to be associated with severe droughts and 2002 was no exception. Every week from August seemed to produce another dry windy weather change which caused havoc in paddocks where crops had failed or where sheep had been grazing.

Harvest was a 'lame duck' affair with less than half the cropped area sown being harvested. Wheat performed better than barley and canola failed to produce any worthwhile yields. Even though lentils seemed to survive the dry better than most crops, they did succumb and failed also. Field peas were probably the best yielding pulse crop. Grain size varied considerably between region and variety. Gairdner barley had small grain but it yielded surprisingly well. Yitpi wheat still managed to maintain its big grain size.

Of all the predictions of 2002 the most improbable was the incredible rise in grain prices. No one, even given the drought scenario, would have predicted canola to reach $575/t, feed barley $300/t, biscuit wheat $375/t and oats $280/t. The unfortunate result

for some farmers who forward sold grain and could not deliver was as much as $130/t penalty for washing out contracts.

To return to the original question. How should we plan for droughts? It is obvious to say that minimising losses in droughts and maximising profits in the good years is the key objective for all farmers. Sorting out the appropriate years is the problem. The worst error we can make is to mistake a good year for a bad one. Here the potential losses can be enormous. The difference between expenses in droughts and returns from high yielding crops in good years do not come close to equalling each other. We are far better erring on the side of optimism than caution.

Of the eight bad drought years on reord, only half were El Nino years. Long range weather predictions still have a long way to go before we can plan with certainty for years like 2002. We still have to cope with them the best we can. What we can do is know the factors influencing crop yield on our farm, like subsoil nitrate and moisture levels, be on the lookout for early warning symptoms of drought and be prepared to be flexible as the season progresses.

The good news is that, given that we are all likely to experience on average 3 to 4 of these types of years in our farming careers, we now have one less to worry about.