

USE OF A TECHNOLOGY IN FARMING  
FROM A FARMER'S POINT OF VIEW

Mostyn Fletcher

Cotton Grower, Emerald

This can cover an enormous area because not only does technology intrude into every aspect of growing a crop, by the view of it can change drastically with each different farmer. Compare a man establishing himself on a 500 acre ballot farm in Central Queensland with the manager of a large corporate farm of over 10,000 acres in northern New South Wales.

The problems that each face can be very different. Flat country versus slopes, different climate, different soil types, water supply, etc etc. A real difference is that the big farmer usually has the economy of scale to acquire the technology and expertise and devote the time to tackle his local problems whereas the small farmer is too busy just running his farm and lacks funds to employ experts. He can only hope that others around him have the same problem and they can combine to employ technology to solve their problem or look to the Government DPI to help them out. This last option, as a free service, seems on the way out.

But there are some problems too large even for the big farmer, and in my view, the most serious problems facing our industry are

- (1) insect resistance with the threat of losing Endosulfan, and
- (2) the extreme fringe of the conservation lobby, and we need to concentrate nearly all the technology and expertise we can muster to avoid a severe setback to our industry.

Insect Resistance - I don't have to explain about resistance to this audience just to say that any efficient business has a backup to its most essential elements and we need this with Endosulfan for resistance. I realize there is a power of work being done. I look with enthusiasm on the plant breeding, with genetic engineering thrown in, and all pertinent research funded by CRC. I read with interest on our local paper that in the US they have developed a chemical called (a highly unpronounceable name, but which they have shortened to) ALA. It is normally a harmless and essential part of life, in normal amounts, but if insects are fed an abnormal amount via a spray applied at night, the rising sun converts the ALA into a very toxic chemical and wham! It then quickly breaks down into its harmless elements.

If any researcher has heard about it I would like to hear their opinion on whether it could be a goer or not. If no researcher has heard about it I would like to know why not.

Conservation Movement - Is a looming problem. At Emerald this season, we have had our problems, with complaints of spray drift, bad smells, dead bees and noisy aeroplanes. The growers and aerial operators, who were definitely not squeaky clean have tried hard to clean up their act using available technology and expertise. A committee of three councillors, DPI experts, local doctors and growers, has been formed to try and solve complaints. At the public meetings held to talk out the problems, it is obvious that the people who kick up the fuss are usually well educated and intelligent and its usually a case of a little knowledge is a dangerous thing. They are not swayed by rhetoric and the only way is to educate them to a point where they have some understanding of what goes on and then we can work out a way of living together. They will listen, maybe not always be convinced, to an explanation by a man who obviously knows his subject and shows how technology has backed the research conducted to reach his conclusion, especially if he is a disinterested party. People like Dr Peter Twine, Neil Forrester, John Harden, to name a few, are invaluable at a public meeting.

People will listen to a chemical company scientist or research chemist but the Managing Director might as well stay at home.

Problems next in line are -

FERTILIZER - We have been experimenting with fertilizer rates for years but we are still applying rates arrived at by gut feel plus a bit in case we're wrong - highly technical stuff. Soil tests are very accurate but there is no instrument to look at it from the plant's point of view. I was very interested to hear from a local grower who went to NSW contract picking. His client was using double beds which he went to great trouble not to disturb. His theory, as I understand it, was that ripping etc destroyed the micro fauna that was painfully built up during the year and if preserved, gave you a head start in the next. Sounds good to me. Maybe this bacterial population is a way to measure the effectiveness of the amount and placement of fertilizer applied.

HERBICIDE - Every year, damage to plant stands from herbicides, promoting root diseases is always on the cards. I see where a company in the US is investigating the few healthy plants surviving on plant stands badly affected by what the Yanks call "damping off", found they were being protected by a type of bacteria.

They have now isolated the bacteria and it can be applied in granular form with the seed. They are claiming great results and it is called Dagger G.

EXTENSION - This is an area that needs urgent attention. There is a wealth of research being done and has been done on every aspect of cotton growing. There must be enormous amounts of research gathering dust because it is just too much trouble to fund or its existence has been forgotten. The obvious thing is a central computer data bank with all research filed and catalogued so anyone with a PC and a modem could access all research data on any problem he was trying to solve. A terminal in every DPI office would cater for those without a PC - all this for a fee, of course.

Finally, from this growers' point of view, this industry needs to invest two to three times as much than it is at the moment, in technology and the people who apply it. If they can supply me with (1) plant variety, producing quality and quantity; (2) the tools to control insects, weeds and diseases efficiently; (3) the PR and research to convince the public we can live together; then I'll handle the rest, with a little help from other innovative growers and people wanting to make a quid out of the industry.

