

GRAHAM PRICE AND THE HISTORY OF THE HAWKESBURY MUSHROOM INDUSTRY

By Dr Jenny Ekman

There wouldn't be many who have been in the Australian mushroom industry more than a few years who haven't come across Graham Price. Along with Rob Tolson, and other early trailblazers such as Roy Sanders, Raymon Mas and John Miller, Graham was one of those who helped take the Australian industry from its rudimentary beginnings to the mechanised, highly technical business that it is today.

Graham recently retired from his position at the Marsh Lawson Mushroom Research Unit, so I took the opportunity to talk to him about his amazing life with mushrooms, spanning more than half a century.

JE: So how did you get started in the mushroom industry Graham?

GP: I first got interested as a 14 year old kid helping to turn compost over the weekend. It was hard work I can tell you. Even after I joined the army at 18, I still used to come home at weekends to grow mushrooms. At that time mushrooms were still growing on ridge beds, but the business was profitable, and it was a great way to help the family income.

JE: But clearly being just a weekend mushroom farmer wasn't enough.

GP: No, so when I left the army at 21 I grew mushrooms from March to October, then did seasonal labouring jobs until the next season. I was still doing that when



Graham Price hand turning compost for his mushroom farm

I married my first wife Carol. However, in 1964 I was approached by Mal Manning to take over his farm at McGraths Hill. We doubled production almost straight away - Mal had been putting the Phase II compost in concrete troughs on the floor, when we changed to a rack system, it worked much better.

Mal had a small spawn laboratory at the farm, and that was where I learned how to produce spawn.

JE: That must have been relatively advanced technology at the time - who taught you the techniques?

GP: Well, in 1968 Carol and I really hit the jackpot. We were invited over to the US for a short course at Penn State University by Professor Kneebone. Dr Kneebone and his wife could not have been more hospitable; Carol and I stayed at his house, and nothing was too much trouble. We learned so much, it was a great experience.

JE: Understanding such new methods must have given you an edge when you came back to Australia.

GP: That's right. We became major suppliers of spawn around Australia. The AMGA had formed in 1961. They started conducting some marketing and promotion of mushrooms based on donations from growers. Having joined myself in 1964, I thought we should implement a spawn fund levy of 5c per quart (litre) to be used for research as well as promotion. This would include every grower, as everyone used spawn. It was met with some hesitation, but in the end it became a reality and continues to this day.

JE: Indeed - that spawn levy is the reason I can sit and talk to you now through project MU21003 - thanks Graham!

GP: The timing of the levy was very fortunate. By the late 60s canned mushroom sales were falling rapidly. In 1967 we used the new levy funds for a very successful campaign promoting fresh mushrooms direct to consumers. Promotion included a "Mushroom Week" with recipes in the Australian Women's Weekly, media appearances and the fabulous "Mushroom Girls". Whereas before only 25% of the crop at most would go to the fresh market, now we could easily sell 75%.

JE: It sounds like the industry was rapidly expanding into a whole new marketplace.

GP: It was, so we continued to develop the farm at McGraths Hill. In 1970 we put in a custom-made compost facility, using the first continuous 'Cook' compost turner, imported from England. This meant we could sell ready mixed compost to other growers. People



Mushrooms growing outdoors on ridge beds in the Hawkesbury



Graham operating the continuous 'Cook' compost turner with his son Stephen



Site inspection at McGraths Hill, c. 1992. Left to right Graham Price, Marsh Lawson, John Rodwell (UK/US), Dr Tan Nair and Rob Tolson.

started to realise that you could grow really good mushroom crops using properly made compost. We kept improving the mix, adding cottonseed hulls and meal, as well as adjusting the mix of poultry litter, straw and gypsum.

JE: Were these changes based on your own research, or were you getting advice from elsewhere?

GP: A bit of both. We had great help from NSW Agriculture, especially Dr Tan Nair. In 1977 Dr Jim Sinden visited Australia from Switzerland and provided an excellent short course. Every grower attended, and we all learned the latest technologies for making compost and growing mushrooms.

The kids - Geoff, Stephen and Alison - helped out too. Geoff of course has since gone onto great things, initially becoming the local mushroom industry advisory officer. He is now technical director at Giorgi Mushroom Co. in Pennsylvania, and head of the American Mushroom Institute.

JE: Clearly mycelia run in the Price blood. What next for the expanding empire?

GP: I purchased the railway tunnel at Bowral. I was splitting my time between the farm at McGraths Hill and Bowral, which meant I was working away a lot. In the end Carol and I separated, which meant I became a single parent to the two boys, then aged 9 and 12. I sold Bowral to Noel Arrol so that I could manage the McGraths Hill operation and care for the boys. I would get up at 5:30, do the daily rounds, then be back by 7am to give them their breakfast and get them to school.

JE: McGraths Hill mostly grows houses now!

GP: It does. Urban sprawl caught up and the complaints started. In 2000 I sold the land and retired - for the first time.

JE: You retired - but surely there was still mushroom growing in you?

GP: There was, and in 2002 I started managing Mike



Graham in the MLMRU growing room (left) and with Prof Michael Kertesz and students (right)

Hills' farm at Maraylya. My new wife Janet and I did that for four years. I'd go down to check everything was OK at 7:30 each night, and I remember Janet's granddaughter asking where I was going. She told her I was going to kiss the mushrooms goodnight - that really stuck, in the end we both had to go down and kiss the mushrooms goodnight.

In 2006 we again purchased our own place - a small farm out at Dubbo. However, once we reached our 70s we decided it was time to hang up our aprons and picking knives and come back to the Hawkesbury, where we could spend more time with friends and family.

JE: So that was a second retirement - but it didn't last either did it?

GP: No, it didn't, as in 2011 Greg Seymour asked if I could grow mushrooms at the MLMRU at Sydney University. I enjoyed my time at the unit, having great success with various trials examining casing, nutritional additives, irrigation, all sorts of things.

JE: So now finally the third retirement - third time lucky?

GP: Yes, now I plan to just watch on as others do the hard yakka*.

Once upon a time, all you needed to grow mushrooms was a supply of stable straw, a fork to turn the mix, a watering can, a shovel for adding casing, a picking knife and a very strong back indeed. Mushrooms were initially grown in the open on raised ridge beds made from straw mixed with manure. The spawn was inserted using a 'dibble stick' at 6" intervals then covered with hessian sacks.

Once the mycelium grew through the compost, it was cased using farm soil. Sometimes this was soaked in formaldehyde to make sure it was disease-free.

Pickers had to dodge snakes and mice, which sheltered in the straw and under the hessian. Even after the ridge beds were moved inside old poultry or packing sheds, a good mouser was an essential member of the farm team.

In his book "Reminiscences of a Fun'gi", John Miller talks about growing mushrooms as a safer crop than citrus, stonefruit and vegetables. A key turning point was the floods in 1956. That year the Hawkesbury flooded seven times. He and wife Beryl turned to mushrooms, as did Bert and Beryl Tolson, who were then vegetable growers near Cattai.

However, it was hard work. As John recalls, "I remember how refreshing it was to dive into the then clear water of the Hawkesbury at the end of a day spent hand turning compost!"

At that time mushrooms were already being grown

in the disused railway tunnels at Circular Quay (Raymon Mas) and Lilyvale (Anne and Martial (Marsh) Lawson). By the mid 1950s there were close to 200 small mushroom farms operating up and down the Hawkesbury, mainly supplying the Edgells cannery at Bathurst.

The industry was thriving, creating employment and income in areas where fruit and vegetable production were often uneconomic. The 1960s saw development of mechanical turners used for Phase I and Phase II composting. New sheds were insulated, even air-conditioned. John Miller's farm built in 1966 used a tray system, which combined peak heat, spawn running and cropping all in situ; very new technology for the time.

It was in 1970 that this farm became Graham Price's first customer, buying in the compost made with his new automatic continuous compost turner. This was based on the "Tasma Turner" design invented by Tasmanian Gordon Griffen. As John says "this took the backaches and sweat out of compost making and improved the quality of the finished phase I compost... (it also meant) we could concentrate on just growing mushrooms, to compete against the cheap imports from Asia taking over the cannery market".

We may no longer be sending most mushrooms to canning, or sterilising casing by soaking it in formaldehyde, but I'm sure most growers today can identify with the need to improve efficiency for price competitiveness, already faced back in the 1960s.

***POSTSCRIPT:** Graham is now volunteering with the Secret Garden and Nursery in Richmond, a not for profit 'Community Hub' managed by the North West Disability Services, where he is once again setting up a small mushroom growing facility...