

# Tainted blooms

The cut flower industry is a heavy user of pesticides, so you may be bringing more than just blooms back from the florist, writes JO IMMIG.

Chances are you're conscious of pesticide residues on your fruit and vegetables because you eat them, but do you ever stop to think whether flowers might be drenched in pesticides, genetically engineered, or even where they may have come from?

The cut flower industry is one of the biggest consumers of pesticides worldwide. It also has a dubious record when it comes to worker health and environmental damage. By global standards, the Australian flower industry is relatively small, although precise figures are hard to find. Anecdotal information from florists suggests imports only make up about 5 per cent of the market, largely roses and lilies for Valentine's Day and Mother's Day.

However, Australia is no exception when it comes to the extensive use of pesticides to grow flowers. The Australian Pesticides and Veterinary Medicine Authority (APVMA) indicates there are around 100 different pesticide active ingredients permitted for use on flowers. The list includes highly toxic insecticides such as chlorpyrifos, diazinon and endosulfan (now banned in over 60 countries), persistent herbicides such as simazine (a known groundwater contaminate) and fungicides like thiram, which is a nervous system poison that also causes developmental and reproductive effects.

There are also pesticides used under permits issued by the APVMA, which effectively means they have never been thoroughly assessed for use on flowers. Not content with nature's bounty, Australia was also an early adopter of genetically engineered carnations, commercialised in 2004 to produce blue, mauve and violet coloured blooms.

Floriculture, traditionally associated with cooler European climates, has now largely moved to more tropical countries such as Colombia, Ecuador, Mexico, Kenya, India and China, where labour is cheaper and there are

less stringent occupational health and environmental protection laws. The move to hotter climates and intensive hothouse growing environments means more pests – and, consequently, more pesticides. There are stories of poor worker health associated with acute pesticide poisoning, such as headaches, dizziness and blurred vision, as well as long-term health concerns such as increased rates of cancers, birth defects and nervous system damage\*.

Globally banned pesticides such as DDT, aldrin and dieldrin are still being used in some countries. Methyl bromide, an ozone-depleting chemical, is still widely used to sterilise soil. Flower production requires vast quantities of water and energy resources to transport flowers around the globe under refrigerated conditions. Pesticide residues also contaminate waterways and aquifers, affecting fishing and local food security.

Imported flowers are treated with pesticides for quarantine purposes, but because flowers are not edible they are exempt from regulations and are not inspected for pesticide residues. On the question of residue assessment, Simon Cubit, spokesman for the APVMA says, "If flowers are not grown for consumption then residue levels are not set or required. In those cases where flowers are grown for consumption, normal residue assessments are undertaken".

With all this in mind, if you don't know the origin of your cut flowers it's probably safer not to bury your nose in among them and, when they're spent, don't put them in the compost bin.

#### \* Sources:

- "Would a rose not smell as sweet?," *Environmental Health Perspectives*, Vol. 110, No. 5, May 2002.
- *Flowers: a tale of beauty and the beast*, Pesticide Action Network UK, *Pesticide News*

#### Give sustainable flowers

- **Grow your own for home and gifts.**
- **Locally produced flowers mean less 'flower miles'.**
- **Organic flowers don't have pesticide residues or cause environmental damage.**
- **Seasonal flowers are hardier and require fewer resources.**
- **If buying imported flowers, ask where they come from and whether suppliers are part of an international regulatory scheme such as MPS Florimark.**

Worker health is an issue in the cut flower industry, which uses a wide range of pesticides.

PHOTO:PHOTOLIBRARY

#### FLOWERING ORGANICS

Given the eerily consistent, production-line looks many flowers seem to have these days, it's hardly surprising consumers and florists are seeking out local, seasonal and organic flowers whenever they can.

Liz and Bob Gray are among only a handful of certified organic flower growers in Australia. On their 28-ha certified organic farm in Northern NSW, they grow 3ha of mixed flowers alongside organic spices, garlic and vegetables, while also maintaining 40 per cent of their farm as native biodiversity.

According to Liz, "Some people think organic flowers are somehow inferior, but they're top quality because they last longer, are hardier and not covered in pesticide residues."

Liz and Bob both come from keen gardening backgrounds. After a period of wanderlust they settled on their farm, Jugglersfoot (the shape of the farm), in the 1970s, where they have since raised three children and expanded their organic farming enterprise.

Strelitzias and hippeastrums were the first flowers they grew. Experienced plant collectors encouraged them and shared their knowledge of flower growing in the subtropics. Today, they grow over 25 varieties, including natives, perennials, bulbs, seasonal annuals and foliage plants.

"Having a mixed, bio-diverse farm is the key to our flower-growing success", says Bob. "Large paddocks are retained for growing mulch between the different growing areas, and we alternate between mulch production and seasonal growing. Thick applications of mulch are important for building soil, minimising weeds and for water conservation. We keep an eye on



pH, which is important for achieving good flowering results."

While they aim to have flowers year-round, winter is the downtime when they have orchids, bromeliads and stocks. Then, like a real-time fireworks display, spring begins a celebration of colour and shapes with freesias, ranunculus tuberoses, lilliums, sunflowers, zinnias and snapdragons. Through summer and autumn there's colourful foliage, and tropical flowers like heliconias and the beautifully perfumed flowering gingers.

A key point of difference for organic flower growers is distribution. Wholesalers often demand bulk quantities and perfection, which is the antithesis of organic flower growing, so organic flowers tend to be sold locally and directly to the public. Liz and Bob do supply some flowers to a Melbourne wholesaler but sell most of their blooms at the Byron farmers' markets, and through local florists where their prized tuberoses are highly sought after.

"The feedback is always fantastic" Liz says. "We have regulars and people who order for special occasions. Some question why flowers need to be organic, but we explain it's healthier all round for our customers, our farm and us".

**Above:** Liz and Bob Gray are among only a handful of certified organic flower

