Beware of the pseudo greens – like Greenpeace

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Could Greenpeace actually be fighting against the environment? Is it possible that Greenpeace has a greater desire to maximise their own profits than do the best thing for the environment and the community in general? Could they be trying to scare well-meaning people on the street in order to attract donations? Indeed, is Greenpeace a multinational? Or worse still could Greenpeace be obstructing the truth?

On Greenpeace's website they encourage donations to support their ethic of "take action to stop atrocities against the environment." Greenpeace also have produced the "true food guide" and now they have released "The good oil." So let us examine Greenpeace in the light of their ideas of:

1. Protecting the environment – like reducing; pesticide use, carbon emissions and soil erosion
2. Promoting true food
3. Protecting farmers from market losses

You get the feeling that Greenpeace would like people to believe that they are doing everyone a favour by fighting against modern science-based and smart plant breeding techniques. While these techniques are not generally well understood by the public it is possible to scare the average person. It is easy to scare those with limited scientific knowledge and it may take years to abate these fears. Like it took 12 years for Pasteurised milk to become accepted.

In the 21 page report called "the Good Oil" which was released in September 2009 Greenpeace make many doubtful claims about GMO's or genetic engineered (GE) crops. I would like to examine eleven of their claims. They include:

1. Page 4 – *"the difference between genetic engineering (GE) and other techniques is that genes are usually moved between species"* (the implication is that conventional breeding does not move genes from other species). NOT TRUE
    a. Many crops grown and consumed worldwide have genes from other plants inserted into them by conventional plant breeding, eg triticale, commonly grown triazine tolerant canola, and the UWA salt tolerant wheat currently being bred – which looks nothing like wheat. Indeed, all species in the animal kingdom share at least 75% of their genes with all animals.
    b. GE techniques often involve turning genes off, turning genes up or turning genes down and these techniques do not involve genes from other species. As with conventional breeding sometimes genes are transferred from other species, but this is more common with conventional breeding often associated with embryo rescue.
    c. Conventional plant breeding includes mutagenic breeding where plants are radiated or soaked in acid to destroy parts of the DNA to create new proteins that rarely exist in the species and then the plants are recovered through backcross breeding. This mutagenesis work is random and does enormous damage to the DNA. Much of the DNA damage is overcome with back crossing to the original healthy parent – but new genes are effectively created that may otherwise only occur in another species. Indeed this is why the technique is used.

CONCLUSION – If you have carefully followed these three points then it will be clear to you that Greenpeace have been too narrow and biased in their summary of what is genetic engineering. From this point on readers must become sceptical of Greenpeace and its arguments against GE crops! Greenpeace ignores discussions on mutagenic plant breeding!

2. Page 4 – "Inserted genes can disrupt other genes". YES, POSSIBLE!
    a. However, what Greenpeace do not say is that the chance of gene disruption from GE breeding is much less than it is compared to many forms of conventional breeding.
    b. Mutagenic breeding, from which over 2,000 lines have been released, has been used since 1927 and this technique creates many unknown gene disruptions. Incidentally, such gene disruptions have not caused one single human health or environmental problem over the 80 years of mutagenic breeding. But if there is a concern with GE breeding then logic suggests that GE breeding has to be much safer than mutagenic breeding.

    CONCLUSION – If Greenpeace really were concerned about gene disruption then they would we working to rid the world of foods bred with mutagenic breeding or at least creating concern and awareness of this technique. Or, at least they would be insisting on food labelling to this effect. Interestingly, mutagenic bred plants cost about $6,000 to take a plant to commercialisation while the costs to commercialise GE plants is in the tens of millions of dollars.

3. Page 4 – "GE has developed only two traits in Australian crops". NOT TRUE!
    a. There are dozens of GE traits that have been bred for Australian crops, however only a few have been commercialised. This is due to the vigorous regulatory process and exorbitant costs associated with the release of GE technology.
    b. GE traits that have been bred include; virus resistance, bloat safe pasture, low glycaemic index wheat, Liberty resistant lupins, methionine enhancement, non-bruising fruit and plant tolerance to salt, drought and frost.

    CONCLUSION – Those trusted organisations who have made most of these GE innovations, include; many Australian Universities, many Departments of Agriculture and CSIRO and yet they can't afford to take their GE crops to the market. Why would that be so? Exaggerated fear, as generated by GE opponents, has ensured that the regulation of GE crops can only be done by the large multinational companies.

4. Page 5 – "GE crop industry-sponsored marketing campaigns attempt to sell GE as the only way to improve oilseeds." NOT TRUE!
    a. There is clear evidence this is not the case, all of the informed agricultural industry understands there are many breeding tools that can improve oilseeds. The crop industry believes in allowing growers the right to chose.
    b. The inference from this sentence is that the only ones promoting GE technology are those who are being paid to do so. I am one exception and I know of many more. To be engaged in this debate is costly in time and knowledge. Greenpeace have many full-time lawyers being paid to run their aggressive anti-GE campaign.

CONCLUSION – Greenpeace do not acknowledge the overwhelming voice of respected and independent scientists who applaud GE technology. It is interesting to observe that Greenpeace are not actively campaigning against GE crops in places where the technology is common place, like in; Argentina, Brasil, Canada and the USA. An influential friend of mine recently visited many Canadians about GE crops and his comment was – they can't believe that we are still arguing about this technology.

5. Page 5 – "Only a handful of peer-reviewed live animals' tests of GE food have been undertaken." NONSENCE!
    a. I have a list of nearly 100 peer reviewed scientific papers that show GE crops to be just as safe in animal diets as non-GE crops.
    b. In fact an EU study costing $US60million in 2001 consisting of many eminent EU scientists concluded that "GM crops are as safe, if not safer, than conventionally bred crops."
    c. Many trillions of GE meals have been consumed in the last 15 years by people without a single human health incident. Indeed the opposite is true – google Bruce Chassy and GM corn which has dramatically reduced fertility problems in women.
    d. What about the dozens of GE pharmaceutical goods that are used daily by many Australians and have been for the last 20 years with great success and safety. While at University I learnt that it is more dangerous to inject products into the blood stream than it is to consume them orally. So why are Greenpeace so focussed on GE foods and they ignore GE pharmaceuticals?

    CONCLUSION – Greenpeace ignores credible science and embraces those scientists who are on the fringe of science, including those who have published almost nothing in peer reviewed journals – like; Dr Judy Carman of Adelaide who is opposed to GE technology.

6. Page 5 – "GE canola [in Canada] contaminates non-GE canola growing many kilometres away."
    a. The level of cross pollination is very low when plants are grown alongside each other. Greenpeace use word 'contamination' rather than the more objective and accurate words of 'cross pollination'. Is it possible that they use contamination in order to infer that there is a problem – which is not the case?
    b. In Canada, there is no issue with cross pollination. The level of mixing has to be over 0.9% (or one in 100) before a crop has to be marketed as GE (or GM). This can be achieved with a 5 m buffer between GE and non-GE canola crops. Despite this, over 90% of Canadian farmers grow GE canola over non-GE canola. It is true that Canada decided the best approach was to not segregate GE and non-GE canola as they figured there was no benefit in doing so. This has been shown to have been smart.

    CONCLUSION – Greenpeace would have us believe that Canadians farmers are not comfortable with GE canola – nothing could be further from the truth – except for a few noisy farmers who broke the law with GE crops and then Greenpeace pay for a free trip for them to travel the world and talk.

7. Page 5 – "GE cotton....in Australia....has failed to deliver." TRUE!

a. There has been a drought in eastern Australia and limited irrigation water available. So yes, production has been down recently – but this has nothing to do with GE technology, which again is the inference Greenpeace are making.
b. It is hard to find a GE cotton grower who would chose not to grow GE cotton after using the technology.

CONCLUSION – Greenpeace would have people believe that GE technology is going backwards. Nothing could be further from the truth! There was a four-fold increase in GE canola area and a likely 10-fold increase in tonnages produced in Victoria and NSW in 2009 over 2008. Indications are that farmers in WA will, at least, quadruple their GE canola area in 2010 if they are allowed open access to the technology in 2010.

8. Page 10 – "Polls indicate that shoppers are less likely to buy a product if they know it contains GE-derived ingredients." TRUE!
    a. While this is true in polls it is not proof that shoppers are prepared to read labels and purchase products based on GE identity.
    b. People in North America think likewise and still purchase GM ingredients and when asked why they usually reply "well the regulatory authorities have given approval of GE crops so I don't really care – I look at the price mostly."

    CONCLUSION – Shoppers are more interested in price and quality than GE ingredients.

9. Page 10 – "Consumers will pay less for GE food." SOMETIMES THIS IS TRUE
    a. With regard to the "Good oil" of canola. Canadian farmers, on the 1st October, are achieving $CA417/t for their GE canola in Vancouver or $A442/t while at Fremantle port the current price is $A423/t. This is a $19/t premium for Canadian GE canola and most of it is sold to Japan, which according to Greenpeace "78% of Japanese..... do not want to eat GE foods."
    b. If there is a market premium for non-GE canola, then why have Australian farmers failed to gain this premium after 14 years? ABARE have concluded this with several studies over this time (see Max Foster).

    CONCLUSION – You can't trust what Greenpeace say about GE foods and crops. It seems that Greenpeace care nothing for the Australian farmer and the small rural communities that their profits support. Greenpeace say nothing about the benefits of GE technology, and there must be some GE crop benefits for farmers to increasingly adopt the technology.

10. Page 16 – "GE oilseed crops increase farmers' dependence on biotech seeds...and results in higher costs to farmers." NOT TRUE!
    a. If this were true then farmers would not use the technology. Are farmers fools? Or are farmers business people who will go broke if they do not return a profit from farming? No farmer is forced to use GE technology anywhere in the world. But some farmers are prohibited from using GE technology – myself included!
    b. Before GE canola was available to Canadian farmers, in the early 1990's, they used to grow about 3.5 mt of canola while Australian farmers grew about 2.5 mt. Now Canada regularly grows 10 mt of GE canola and Australia grows about 1.5 mt of non-

GE canola. This is a large turn-around towards GE technology. Canadian farmers have increased their production 3-fold while we have decreased our production by 40%.

CONCLUSION – It is time that Australian farmers were given the choice to compete on a level playing field with their Canadian competitors. We are already 14 years behind!

11. Page 16 **– "**GE oilseed crops increase farmers dependence.....on patented pesticides ....and results in higher costs to farmers." THE OPPOSITE IS TRUE!
    a. The word dependence infers that farmers have no choice. Again this is not true, as in Canada farmers have a choice. If a Canadian farmer wants to grow non-GE canola he can and he will be able to keep the level of cross pollination to below 0.9% and market the grain as non-GE.
    b. Greenpeace say nothing about the higher yields that result from canola without the yield penalty associated with TT canola. TT varieties suffer a 15-20% yield drag below open pollinated canola and a 30-40% yield drag below hybrid canola's. Yes, there will be TT hybrids available soon, but they still will have a 15-20% yield drag below non-TT hybrids and their seed cost will be about $22/kg, only $3/kg less than the GE hybrids.
    c. Virtually the only oilseed crop grown in WA is triazine tolerant (TT) canola which is tolerant to atrazine (a herbicide banned in the EU). A typical herbicide usage with TT canola is 2.5 kg/ha of atrazine, 400 mL/ha of clethodim, 50 mL/ha of Lontrel and sometimes 1 L/ha Roundup pre-sowing. The cost of this mix is about $40/ha compared to GE canola which has about $14/ha worth of Roundup.
    d. Yes, there is a $12.60/t extra cost to growing GE canola.
    e. Summarising costs – which will change from year to year.
        i. GE seed – an extra $8/ha
        ii. GE fee at 1.3 t/ha ($12.60/t) – an extra $16.38/ha
        iii. Less herbicide costs ($40-$14) – minus $26.00/ha
        iv. Difference is $26-$8-$16 = $2/ha benefit for GE canola
        v. Then there is the 30% extra yield and the superior weed control benefit

Summary:

After independently examining many of Greenpeace's claims in "the Good Oils" report, I find the report is biased and omits many significant scientific facts. The glaring omission by Greenpeace of any discussion about mutagenic breeding is a red flag to anyone wanting to know the truth about the safety of conventionally bred and GE bred crops.

Greenpeace have ignored the well documented environmental evidence for GE crops. These include; less pesticide use, more benign pesticide use (no atrazine – which is banned in the EU), less fuel use, lower carbon emissions, more food produced more efficiently, lower costs and more no-tillage which results in vastly reduced soil erosion. GE crops clearly leave a smaller environmental footprint compared to non-GE crops. So do Greenpeace care about the agricultural environment?

Why is Greenpeace so keen to stop the cultivation of GE crops in Australia when the environmental evidence for GE crops is so strong? Also, given the double digit percentage increase in adoption of GE crops annually since their wide-scale release in 1996, they have been an outstanding success?

For me personally, I would like the choice to decide whether or not to grow GE canola on my own farm. I would like the opportunity to compete fairly with my Canadian farmer friends who have had the benefit of the technology for the last 14 years. This technology has the potential to allow us to develop crops more rapidly that can survive in harsh climates – like Australia.