

Meeting with Pacific Seeds to discuss the suspected presence of genetically modified (GM) maize

28 August 2002, MAF, ASB House, Wellington

MAF: Barry O'Neil (first half of meeting), Richard Ivess, Veronica Herrera (first half of meeting), Gerard Clover, Brett Sangster, Sally Griffin, David Wansbrough, Jim Sim (first half of meeting, New Zealand Food Safety Authority)

ERMA: Kevin Currie, Robert Hickson

Other officials: Karla Falloon (first half of meeting, MoRST), Felicity Wong (second half of meeting, DPMC), Sarah Adams-Linton (MfE), Dave Harrison (second half of meeting, Minister Sutton's office), Tim Bennetts (second half of meeting, Minister Hobbs' office)

Pacific Seeds:

Howard Morris (Regional Director – Africa, Asia and Australia, Advanta)

Nick Gardner (International Manager, Pacific Seeds)

Karen Price (lawyer, Minter Ellison Rudd Watts)

Agenda:

- Presentation by Pacific Seeds on information requested by MAF/ERMA
- Next steps
- Communications

Presentation by Pacific Seeds

Most of the information is contained in a briefing folder provided by the company, the following records comments/questions from government officials and additional information provided by the company

Introduction

- Pacific seeds is part of the Advanta Group.
- They specialise in hybrid crop seeds (maize, forage sorghum, forage brassicas in New Zealand).
- Recognised as biggest seed company in Australia, not particularly large in New Zealand but committed to developing a market here.
- This episode has set them back but they still intend to continue to develop the business, understanding the cause of this incident is critical to developing their business in New Zealand – their customers need to have confidence that their product is non-GM.
- They have excellent quality assurance systems to ensure the seed are GM free and have always exceeded government regulations as a 'margin of safety', which is the only reason that the problem was detected.
- Committed to co-operating with the government bodies and expect the same in return
- Important that dialogue is continued as they have a lot to offer in helping identify the cause and developing suitable responses and actions. The way the government responds may influence the willingness of other companies to co-operate in future incidents and take precautionary measures over and above regulatory requirements. Happy that after an initial hiccup, it has settled down to a high level of dialogue, and hoping that this meeting

should provide the information that the government was seeking and now looking forward to getting some feedback and decisions from the government.

- The document presented has had some commercially sensitive information removed that is not relevant to the issue (eg bank account details, street numbers of properties). Only a very small number of documents are affected.
- Pacific Seeds will be conducting their own internal review of operations, mainly over the next couple of months and this is expected to be finished by December.

General information about the crops

- All seed has been accounted for.
- Seed was not certified under OECD seed scheme as the seed was not required for export, but Pacific Seeds request that their growers abide by OECD guidelines, which are well-established industry practices.
- GeneScan can't determine exact concentration of GM seed, just that it was less than 0.05% in both crops.
- Both parent lines were tested, but not the parents of the parents. Seeds from the two parent lines grown in Gisborne were combined to form a single sample but it is not known what the proportion of male / female parents was. Gerard Clover (MAF) asked what the number of seeds in the sample was and the composition of each parent line. Pacific Seeds will provide data.
- Parent lines tend to be less vigorous and produce less pollen than other crops.
- There may be very different outcomes depending on whether (and if) further tests show that either the male or female parent contained GM seed. When producing a hybrid, the female parent is de-tassled before producing pollen so all the pollen is produced by the male but all the cobs are harvested from the female. Therefore if GM seed was present in the female parent it will be contained within the harvested crop and there is no potential for escape via pollen to surrounding *Zea mays* crops. The male represents less than 25% of the crop area so if GM seed was present in this parent at a concentration of <0.05% (about 30 plants per hectare across the whole crop), the number of potentially GM male plants is up to 8 per hectare.

Gisborne crop

- Information about the period of silking and pollen shed on the nearby sweetcorn has been gained from general information from 25 sweetcorn crops in the local area, not necessarily from physical inspection of the specific sites. Details on start of pollen shed and silking on the affected fields have been established from physical inspections. Pacific Seeds will provide further information if required.
- The hybrid maize crop was grown between fields of sweet corn to the north and south so the possibility of cross-pollination from the maize crop to the sweet corn crop needs to be considered (usually the grower is avoiding cross-pollination from the sweet corn crop).
- There was an 8 or 9 day gap between silking of the northern sweet corn crop and pollen shed from the hybrid crop, and a 3 day gap for the southern sweet corn crop plus there was a large hedge between the two fields.
- The 20 outside rows of the southern sweet corn crop were harvested first. MAF standards state that each row is equivalent to 10m of isolation distance, ie the 20 outside rows provide the equivalent of 200m isolation for the inside rows.
- If there was cross-pollination from the later-pollinating hybrid crop, this would have resulted in immature cobs that are rejected at harvest or during quality control. Cobs with starchy kernels are also rejected during quality control.

- There is no weather data for the period, e.g. the wind direction during silking and pollen shed. Pacific Seeds will get data.
- The sweet corn has been harvested as cut kernels and frozen in bulk.
- Jim Sim (New Zealand Food Safety Authority) said Bt176 is approved for use in food in New Zealand so the only issue might be labelling if it is above 1%, but the suspected concentration of <0.05% suggests this would not be an issue. However, what if the GM seeds came from another source and not Pacific Seeds? We will have to wait for results before this can be addressed.
- Barry O'Neil (MAF) confirmed that MAF will not release any information without consultation with Pacific Seeds about the accuracy of the information, and Pacific Seeds are committed to giving this issue the highest priority.
- David Wansbrough (MAF) said that a request under the Official Information Act for the information presented by the company is highly likely. Howard Morris confirmed that the company had prepared the folder with that in mind and was prepared for the folder to be released. However, he was very concerned not to release partial information before final conclusions had been drawn.

Pukekohe crop

- Pacific Seeds have not asked if GeneScan can specify which YieldGard types (MON810, MON809, MON802) were present.
- If any cross-pollination has occurred at the Crop & Food research station, this was most likely between the affected plots and two plots of maize yield trials. One was isolated by at least 120m, one full and one partial shelter belt, and 5 days difference between silking and pollen shed. Also, 8 guard rows were mulched, providing the equivalent of another 80m isolation. The other plot isolated by at least 110m, two shelter belts, and 3 days between silking and pollen shed. There were 4 guard rows providing the equivalent of another 40m isolation. The seed from the maize trials were bulked and used for animal feed. From a seed company perspective, this level of isolation is very good.
- The hybrid seed that tested positive was from the Puni site (not at Crop & Food) and there were no other maize crops nearby. Some domestic animals have grazed on the plot.

Recropping Options

- Seed maize is the best financial option. Other options would not offer the same returns, with pasture offering the lowest returns, but profitability of other crops is hard to estimate. Pacific Seeds believes that control of volunteers is sufficient that seed maize production using inbred lines could occur on these plots.

Post Control Procedures

- Pacific Seeds committed to inspect sites every fortnight until end of October and monthly until end of March and suggests that MAF/ERMA audit these inspections.
- Inspections would be recorded and MAF advised if any occurrence of uncontrolled volunteers were recorded.
- They will formally review all their quality assurance processes by end December.
- They wish to re-enter the New Zealand market as soon as possible.

General

- Pacific Seeds is looking for some quick decisions (within hours or days) about what to do with the sites and future uses. They need to act quickly and the farmers etc need to start the work as soon as possible.

- Kevin Currie (ERMA) said we should not react just to this situation but rather put together a strong robust strategy that can be used for any future events.
- Howard Morris (Pacific Seeds) said that the company had done everything it could to abide by the law. The industry views this situation as a real test case. If the restrictions and obligations were made too onerous, it may simply drive some activities of less responsible companies underground. Pacific Seeds is after the best outcome for all.
- They are willing to help MAF/ ERMA as necessary.
- Richard Ivess (MAF) thanked Pacific Seeds for their quick action, cooperation and transparency.

Questions

- Felicity Wong (DPMC): Does Pacific Seeds face financial penalty if the plots cannot be cropped with maize? Not possible to give categorical answer because liability issues are difficult to resolve. Normal liability laws (eg nuisance) would apply. Pacific Seeds is seeking to cooperate with farmers but the potential for liability claims increases as restrictions over the sites increase.
- Felicity Wong (DPMC): Is liability covered by the contracts with seed suppliers? No. Pacific Seeds has done everything possible to abide by the law, the imported seeds were tested and found to be clean. If legal obligations become too onerous, then these activities will be driven underground or away from New Zealand.
- Felicity Wong (DPMC): Can you get compensation or insurance coverage? Difficult to answer but insurance for GM issues is almost impossible to obtain.
- Gerard Clover (MAF): Exactly how many importations of seeds were there?
 - Pukekohe – 1 shipment
 - Gisborne – 1st shipment – 1 bag of male and 1 of female
 - 2nd shipment – 7 bags female
 - 3 bags male
 - all these seeds were from the same identical batch (the last two digits of Garst Seeds' batch numbers identify the field they were grown in)
- Dialogue with Monsanto (source of seed for Pukekohe) was mostly through e-mails. May need to get further information from them if possible.
- Pacific Seeds are not producing this season and will import from Australia, which is protected through phytosanitary requirements.
- Howard Morris (Pacific Seeds): What are the timeframes for decisions? ERMA/MAF will give timeframe for strategy within 24hrs. Strategy needs to happen now and not wait for the test results to come in (hold up with getting the seeds into Australia for testing), i.e. need to proceed on the basis that the company's results will be verified.
- Frozen sweet corn could be withheld from sale but Pacific Seeds has no control over this product, the New Zealand Food Safety Authority must take it up with the company that owns the sweet corn. Gerard Clover (MAF) asked if Pacific Seeds were in a position to provide the name of the sweet corn processing company. Pacific Seeds cannot provide the name as they were provided this information in confidence.
- Kevin Currie (ERMA): Is it possible that the adjacent sweet corn field is the source of GM seed? Tests will need to be completed to eliminate this from the investigation (but this wouldn't explain the Pukekohe results). Sweet corn seeds would have been tested if they were imported since 1 August 2001. Sweet corn viability drops off in second season so it is usually planted in the season it is imported.
- Kevin Currie (ERMA): How long does maize seed stay viable in the soil? Maize seeds either grow or rot in contact with soil that has adequate moisture and the right

temperature. There are no hard seeds so it will not just sit in ground. Deep buried seeds will rot. The idea is to let residual seeds grow and then destroy the germinating sprouts, grow again and then destroy, etc.

- Felicity Wong (DPMC): If the source of GM seed was from within New Zealand, what would Pacific Seeds like MAF/ERMA to do? For many years the seed industry's rules and regulations have allowed a measure of tolerance but is now confronted with legislation with zero tolerance. Pacific Seed believes that zero tolerance needs to be changed to a more realistic level. What would happen if much more maize tests positive and the availability of maize in New Zealand shrinks? There needs to be a balance between extremes on both sides. The cost for Pacific Seeds is rapidly going past \$500,000.

Where to from here

- MAF and ERMA to meet within 24hrs to discuss strategy and liase with communications to announce any strategies for the sites. Assumption is that GM seeds have been grown on the sites unless tests prove otherwise.
- Brett Sangster (MAF) suggested a media conference to announce final conclusions and results of investigation, makes it easier to handle media enquiries at one time. It would be nice to be able to announce a date for it soon, but difficult without knowing when test results will be available. It will take 2-3 weeks to put together a full report. Pacific Seeds will be consulted to ensure its accuracy.
- Media release to be put together in regard to the procedures of crop control and issuing the date of the media conference but no media release is planned for this meeting.
- Pacific Seeds not available for media conference on the weeks starting 16 or 23 September.