STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

INQUIRY INTO MECHANISMS FOR COMPENSATION FOR ECONOMIC LOSS TO FARMERS IN WESTERN AUSTRALIA CAUSED BY CONTAMINATION BY GENETICALLY MODIFIED MATERIAL

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
WEDNESDAY, 12 SEPTEMBER 2018

Members

Hon Matthew Swinbourn (Chair)
Hon Colin Holt (Deputy Chair)
Hon Tim Clifford
Hon Samantha Rowe
Hon Dr Steve Thomas

Hearing commenced at 10.04 am

Mr IAN BURNS

Bio-Dynamic Research Institute, sworn and examined:

The CHAIRMAN: On behalf of the committee, I would like to welcome you to the meeting. Before we begin, I must ask you to take either the oath or the affirmation.

[Witness took the affirmation.]

The CHAIRMAN: You will have signed a document entitled "Information for Witnesses". Have you read and understood that document?

Mr BURNS: Yes, I have.

The CHAIRMAN: These proceedings are being recorded by Hansard and broadcast on the internet. A transcript of your evidence will be provided to you. To assist the committee and Hansard, please quote the full title of any document that you may refer to during the course of the hearing for the record and please be aware of the microphones. Try to speak near them and try not to make unnecessary noise such as shuffling papers around them. I remind you that your transcript will become a matter for the public record. If, for some reason, you wish to make a confidential statement during today's proceedings, you should request that the evidence be taken in closed session. If the committee grants your request, any public and media in attendance will be excluded from the hearing. Please note that until such time as the transcript of your public evidence is finalised, it should not be made public. I advise you that publication or disclosure of the uncorrected transcript of evidence may constitute a contempt of Parliament and may mean that the material published or disclosed is not subject to parliamentary privilege.

Just before we continue, I will introduce myself. I am the Chair of the Standing Committee on Environment and Public Affairs. To my left is Hon Colin Holt, who is the Deputy Chair, and to his left is Hon Tim Clifford. To my right is the committee's advisory officer, Mr Alex Hickman, and to his right is Hon Dr Steve Thomas. Mr Burns, would you like to make an opening statement to the committee?

Mr BURNS: I was asked to respond to the questions with a view not just to look at the issue of contamination compensation, but also the issue of prevention. In the final part of my submission, we have made some recommendations for prevention. Frankly, no-one wants to see another Baxter–Marsh situation. The precursors to another situation are still there. We would like to see prevention rather than cure, in effect.

The CHAIRMAN: We did provide you with some questions in advance. You provided us yesterday with some written responses to those. I must admit, I have not had a chance to review them. Normally the practice of the committee is to still work through our questions and, obviously, if you wish to, you can simply read your answers or speak to them how you wish. What this process also allows for is committee members to be able to open up any new lines of inquiry or seek any clarification on the opinions you put forward. We have your written responses but we will still work our way through the questions that are before us. The first one of those was to describe the general organic certification process that you adopt when you grant organic certification as well as auditing processes when testing for the presence of GM.

Mr BURNS: We audit to the national standard. The founder of the Bio-Dynamic Research Institute, Alex Podolinsky had a strong input into the development of the national standards way back. We are pretty straightforward. The standards are there. If they are there, we abide by them; that is it.

The comments in blue on the submission are from our compliance manager. I apologise if it is confusing for you. She is the go-to person for certification. If further information is required, then I would refer you directly to her.

The CHAIRMAN: Thank you. Are you able to detail the process by which you come to a decision to suspend or de-certify an organic producer on the grounds of GM contamination and the basis upon which the decision is made? For example, would the mere presence of genetically modified material on a farm be sufficient or must it be of the same species and genetic contamination that has occurred?

[10.10 am]

Mr BURNS: The presence of any GM material is prohibited under the national standards. We have no option, no wriggle room on that. We employ variable-risk analysis. We have been doing it for a long time. The guidelines are useful but I would like to make the point that the guidelines are just that. They are guidelines and that control of the standards rests with the organic industry standards and control committee, not with the federal department of DAWR, as per the comments from DPIRD and also in correspondence from Minister MacTiernan to Grogan. The quote from DPIRD is —

The Commonwealth Department of Agriculture and Water Resources (DAWR) have advised that these standards are guidelines, and that DAWR has the power to negotiate market access conditions between Australia and its trading partners for organic produce.

In the national standards on page 68, it says quite clearly that the organic standards committee has control of the standards, not the federal bureaucracy. I would like to clear that up. I have also raised that with Minister MacTiernan's office, because that, I feel, may impact on your future recommendations from this committee.

The CHAIRMAN: Feel free to make that comment if you want.

Mr BURNS: I would just ask that we be clear on where the control of the standards arises. Therefore, it would not be possible for state or federal agricultural departments or DPIRD to change the national standards or water them down as a way of resolving a possible future Baxter–Marsh situation. That is how we see the situation.

The CHAIRMAN: Can you explain why you take that view and say that the federal and state regulatory bodies could not change the standards?

Mr BURNS: Because it is actually in the national standards on page 68: the control of the standards rests with the organic industry standards and control committee. It is actually stated there.

The CHAIRMAN: Yes, but what I am saying is that you are suggesting that the federal and state governments—I think you said state governments, I do not mean to misquote you if you did not—could not change that, but surely they could change it by legislation if they wanted to.

Mr BURNS: The federal government could change it but at present DAWR does not have control. I am sorry to have misled you.

The CHAIRMAN: I am just clarifying that.

Hon COLIN HOLT: My next question is probably outside this area, but related to it. How many farmers are accredited under you guys in Western Australia?

Mr BURNS: About 60.

Hon COLIN HOLT: Has anyone lost their accreditation in recent history or at some point in time?

Mr BURNS: No-one has lost it. The problem is that our farmers do not know what has been planted on their boundary because there is no mandatory reporting of GM. It relies on the goodwill of the

neighbour to say, "I'm growing GM." Our farmers have to assume the worst case, that there is GM on their boundary, and then they put in a sacrificial buffer zone, which is fenced off. The problem is that if GM material gets onto the farm and the stock eat it, then the stock gets decertified as well. It is a vicious circle. The decertification process would be in place for five years, which is effectively economic death for that farmer.

Hon COLIN HOLT: So there has been no decertification because of GM incursion, what about any other situation where you might have decertified an accredited grower or accredited producer? Has anything like that happened?

Mr BURNS: Nothing has happened. It is a low-frequency, high-risk situation, in effect.

Hon COLIN HOLT: What could be some of the other triggers for decertification other than GM incursion?

Mr BURNS: GM is a prohibited input. Other prohibited inputs would be an NPK fertiliser, for example. We are not allowed to use NPK fertilisers. I am an orchardist, so the sprays which I use—I cannot use organophosphates or chlorines. Effectively, the stuff I use is the copper and lime sulphurs, which people used 50 years ago—nothing magical, nothing out of the box.

Hon COLIN HOLT: So the wrong fertiliser application could result in decertification. Is there anything else?

Mr BURNS: There is a list of what is accepted and what is prohibited. Fertiliser sprays —

Hon COLIN HOLT: They are the major ones?

Mr BURNS: They are the major ones. It is the inputs into the farm. The philosophy of biodynamics is that you are trying to get a sustainable, closed system, a self-maintaining system, so we minimise the inputs we bring in and we think very hard because we are trying to do things like integrated pest management, where we have good insects predating on bad insects—simply put. We are trying to get a sustained system. So we sit back a lot and we watch and consider very carefully what we do before we do further inputs. We do not rush to judgement. We do not rush to put extra systems in.

Hon COLIN HOLT: That is good. I think you said before that your producers, for want of a better word, have to rely on assuming that there is GM growing on a neighbour's place and so they need to build in buffers for their own protection. Do they do the same sort of thing with assuming spray drift of an unaccredited chemical?

Mr BURNS: Yes. As an orchardist, I have had firsthand experience of that. Spray drift is a major problem. Fortunately at the moment, I do not have neighbours who spray. In the spraying situation, I would have to put in a similar sacrificial buffer zone. In my valley, the summer winds are from the east and the winter winds are from the north. The winds are frequently 15 to 25 kilometres an hour, so I am going to get a lot of spray drift. That is the sort of thing we look at and that is exactly what I would have to tell—I am inspected every year by the certifier and that is the sort of detail that they go into. That is one of the questions which in fact they ask me. It is a good question.

Hon COLIN HOLT: I am kind of flying ahead. You said you had about 60 farmers accredited. How many are broadacre farmers? Can you explain the split of your accredited producers?

Mr BURNS: I think it is about fifty-fifty.

Hon COLIN HOLT: So fifty-fifty with horticulturalist, orchardists and vegetable growers and 50 per cent are kind of broadacre?

Mr BURNS: I need to check on that.

Hon COLIN HOLT: That is okay. I just want a general indication of the user.

The CHAIRMAN: Mr Burns, maybe you can take that as a question on notice for us. Question on notice 1 is: what is the make-up of your certified farmers in terms of the crops that they grow?

Hon COLIN HOLT: Or the food that they produce, because I assume there is some livestock producers in that as well.

Mr BURNS: There are indeed, yes.

The CHAIRMAN: Yes, and you have just let us know that you are an orchardist. I suspect that is your full-time occupation. Is that right?

Mr BURNS: I used to work in the health department as a clinician manager. I have retired from the health department and I am happily living on my farm watching the roos in the evening.

Hon COLIN HOLT: Pursuing your passion, yes.

Hon Dr STEVE THOMAS: I think Hon Colin Holt has asked most of the questions I had in mind. Can I just confirm, then, are there any other contaminants like GM for your organic certification for which there is not a zero tolerance? With GM, you have a zero tolerance. With spray drift, inorganic fertilisers et cetera, is there a tolerance for any other contaminants within the system?

Mr BURNS: No.

Hon Dr STEVE THOMAS: The follow-on question is: is there a testing regime that is required for those range of contaminants for certification or is it based on an assessment of the production style rather than post-activity testing?

Mr BURNS: The certifier has the right to have the produce tested at any stage through the chemical labs in East Perth. I hope I am answering the question.

Hon Dr STEVE THOMAS: Yes, that is good. Does that happen frequently? Is that a common occurrence?

[10.20 am]

Mr BURNS: It is an unknown spot test. It is not regular. On the annual certification, there is an inspection of the farm by a senior farmer and in my orchard they would look for signs of whether I had used NPK. They look for bluegrass or nitrogen-rich grass. They would use their nous and their experience to look for signs of prohibited substances; and, if they saw anything or were suspicious, they would mandate and say, "Go and test it." They do a test.

Hon COLIN HOLT: Can I follow on from that? Would you say it is generally on the shoulders of the grower to report incursions of whatever could be affecting their organic status?

Mr BURNS: Yes, it is. That is very fair.

Hon COLIN HOLT: I know we have talked about the Baxter case a bit. Are you aware of any other compensation claims from any other incursions or spray drift from a neighbour or in your field or from your members?

Mr BURNS: I would have to take that on notice if I could. I think that is the best way to do it.

The CHAIRMAN: That will be question on notice 2.

Hon TIM CLIFFORD: I have just one question. Are you aware of any farmers who have had any GM incursion but they just have not reported it because they have been deterred by the Baxter v Marsh case?

Mr BURNS: No, I am not. If I could speak to that question, the Baxter v Marsh case probably results in farmers being reluctant to look for organic certification. It is a deterrent because of the risk of the contamination. If you posit a business case and you are going to buy a farm worth \$1 million or

\$2 million, you are gambling that your neighbour does not have GM on it and if he does, you do not know, and if there is an incursion, you have lost your market and your certification. It is just a bad investment risk. There is a secondary effect to the GM contamination issue. We do not want to demonise GM farmers. Farming is a tough gig as it is. The basic rule in the country is live and let live. You do what you want to do on your own property; you just do not stuff up your neighbour's. You rely on your neighbours to share the fencing, to help fight bushfires and drought and to socialise. Isolation is an issue in the country too, as you probably all know. We are looking for solutions and cooperation, not fights. I am sorry if that is a bit off topic, but I just want to give you a feeling of where it comes from.

The CHAIRMAN: No, that is very helpful. I think perhaps sometimes people do, on both sides of the argument, lose sight of some of those points that you make, Mr Burns. I appreciate your comments there. Can you go through what happens in the circumstance where one of the certified farmers suspects GM contamination and what the expectations of your organisation are with respect to that?

Mr BURNS: All operators are expected to immediately inform the organisation. An inspection is then carried out as soon as possible. The issue of immediately clearing the contamination does not mitigate or change the event. To remove it would actually cloud the issue because it would not be possible to assess the severity of the incursion.

The CHAIRMAN: So your certified farmers are told not to clear the land immediately, but to wait until the impact is assessed by your organisation?

Mr BURNS: Yes.

The CHAIRMAN: Has there been any instances where that has occurred where one of your certified farmers has identified that they have contamination or they suspect contamination and this process has kicked off?

Mr BURNS: No, there has not. **The CHAIRMAN**: Not to date?

Mr BURNS: Not to date.

The CHAIRMAN: I am moving over a couple of the questions because you have answered them in your written response and there is no need to go over them. I am going to 1.6 now in which a submitter has stated that nowhere in the current Australian organic standards is zero tolerance to GMOs explicitly stated and GMOs are listed as a prohibited input and some Australian certifiers have incorrectly interpreted this to mean zero tolerance. What is your organisation's position on this statement?

Mr BURNS: We believe that the unnamed certifiers have correctly interpreted the standards as zero tolerance. The reasons: firstly, the word "prohibited" is used in all aspects and facets of the operation ranging from seed input to plant material. Simply put, let us give a definition of "zero tolerance"—I will go to "prohibit". In the Oxford English Dictionary, "prohibit" means "to formally forbid something by law or a rule" or "make something impossible. The definition in the Australian national standards of a "prohibited substance/material" states —

means an input to organic production, processing or handling not permitted in this Standard.

GM is not consistent with our farming philosophy standards, and certainly not with our consumers—with our market base. It is just against our philosophy and our standards. We market as "GM free". To jump forward, if I may, to the 0.9 issue, you cannot advertise as "GM free but may contain up to

0.9 per cent GM". It is a logical oxymoron. I am using humour to cover a serious situation. I think that is about all that needs to be said.

The CHAIRMAN: I think we have got a range of classifications, though, because clearly you have classifications that say "non-GMO" but then you have the organic standard which itself does not implicitly mean that it is necessarily non-GMO in some markets around the world. There is that possibility to market as organic but still have the 0.9 per cent adventitious or co-mingling contaminant or however you want to describe it. But I do take your point about the labelling of a product that says "non-GMO" not being non-GMO. Would you agree with the proposition that the description of GMOs as a prohibited input in your standards effectively means zero tolerance?

Mr BURNS: Yes. Our markets are emerging markets in Asia, particularly China, and also Europe. The European standards which we market to are quite unequivocal. If we have GM, we are out of business; it is as simple as that.

The CHAIRMAN: Are you familiar with the organic exports notice 2018–01, which was recently issued by the federal department of agriculture and water?

Mr BURNS: Yes, not personally, but I have a response to your question.

The CHAIRMAN: Through your organisation, you have a written response. I will ask the question then. The federal Department of Agriculture and Water Resources has issued this new guideline, which is the guideline for responding to contamination by a prohibited substance or material in the organic export supply chain. It recommends that where there has been an accidental introduction of a prohibited substance, including GMOs, the appropriate sanction should be the issuing of a corrective action request only, not a suspension or decertification of the relevant unit. Can you please give the position of your organisation on that organic export notice?

Mr BURNS: There are two answers. One is from the board of the BDRI and one is from the certification manager.

The CHAIRMAN: Perhaps if you could give those.

Mr BURNS: From the board, none have been reported. Farmers report to us when canola is grown adjacent to their property in case it is GM and an incursion occurs. Mandated reporting of GM canola planting would reduce the stress certainly to our farmers in these situations. The national standards should be enforced because incursion of GM canola onto a Demeter-certified property when it is not protect by a buffer zone, is not accidental. It is likely to happen without buffer zones and that means that the demeter farmer must assume all adjoining canola is GM—it is repetition of what I said earlier.

The CHAIRMAN: The next question which I think we are getting to here is: did your organisation support the issuing of this notice? If you want to respond to that —

Mr BURNS: The short answer is yes.

[10.30 am]

The CHAIRMAN: The committee has received evidence that a zero tolerance for organic standard is unreasonable and is driving confrontation over the mixture of GM and non-GM crops pointing to maximum permitted levels of other substances in food. Also some submitters have stated that they believe the issue of GM contamination in Australia has become a contentious issue due to the organic or, perhaps in your case, the biodynamic standards, being too tight. When did you first introduce a zero tolerance for GM material in your standard for organic or biodynamic certification?

Mr BURNS: We helped to develop the export standards that became the national standard for organic and biodynamic produce that was implemented by AQIS according to the Export Control Act 1982.

The CHAIRMAN: Can you describe the rationale for maintaining a zero tolerance rather than allowing for an unintentional presence? I think you might have covered this, but perhaps if we can just deal with it specifically. I will read the question again. Can you please describe the rational for maintaining a zero tolerance rather than allowing for an unintentional presence of GMOs and why you consider this reasonable?

Mr BURNS: The first point is for ethical reasons. GM material is fundamentally incompatible with our farming methods, principles and consumers. Point 2 is market demand. This is the point about GM free with 0.9 per cent contamination. It just does not work. From our certifying manager: worldwide, certified organic and biodynamic products are proclaimed to be 100 per cent GM free, and this is expected by the end user. Without maintaining this 100 per cent GM-free status in Australia, we would not be allowed to export or trade. On the other side of the coin, the public who wish to purchase something GM free need to be certain that they are getting 100 per cent GM free. They are paying a premium; they deserve what they are asking for. Allowances for prohibited substances cannot be made under the national standards. It is against our ethics and it is against our marketing. We have no wriggle room on that whatsoever.

I would ask you to consider it from a biodynamic farmer's point of view. The farmer has put time, effort, money and cost into fencing off and maintaining buffer zones. There is no economic reward for that. It is quite the opposite; it is an impost. The beneficiary is the GM farmer. The GM farmer at the moment does not have to tell his neighbour, does not have to take any supportive action, and, as discussed before, it is a risk situation waiting to happen. The non-GM farmers are already doing more than their bit. We would ask that the GM farmer meets us close to halfway, put in some buffer zones too, do what we are doing and meet us at the fence. Do the buffer zones. They do not have to fence off the product. All they have to do is just not put the crop in within a safe distance. You are going to ask me: how do you define a safe distance? We suggest that the Manjimup agricultural research station be tasked to run trials to determine what are safe buffers. We want to bring some science into this rather than emotion and argument. We also believe that the buffer zones—I am jumping the questions.

The CHAIRMAN: No, go on.

Mr BURNS: We believe that under the Dividing Fences Act that could be amended to make reporting mandatory and the buffer zones mandatory. We would also ask that the Manjimup research station be tasked to work out a clean-up methodology. If there is a clean-up methodology, then it is open, transparent and it is third party, and it would be best agricultural science rather than BDRI saying, "Hey, this is what we think should happen." It is much more transparent and would gain greater acceptance and credibility. I have jumped to the end of where I was going to but it flows quite well.

Hon COLIN HOLT: It was a natural way to move, yes. Thank you for some of these suggestions. I think there are some good ones there. You actually answered one question in a way, but I want to explore it a bit more. So you think a buffer zone for a GM grower should be mandated.

Mr BURNS: Yes.

Hon COLIN HOLT: What about a mandated buffer strip for fertiliser application or spray drift? Should that be mandated?

Mr BURNS: That would be very helpful.

Hon COLIN HOLT: I understand your thing about the social networks that farmers live in. Most of this stuff is solved across the boundary fence as best as possible. We are legislators, so we are not afraid of legislating things, but I think we are also conscious that you do not necessarily want to smash a walnut with a sledgehammer. I was interested in the fact that you think a mandatory solution through the Dividing Fences Act is the way to implement that part of it. But I was not sure about how we could use that legislation for the mandatory reporting of all GM plantings, because that would occur in different places rather than just along boundary fences. I know you did quote it in there, but I am curious about why you think that is the way to do it.

Mr BURNS: You are right. It probably is not the best way to do it. I was trying to keep it as simple—KISS principle—as possible. In hindsight it probably would require separate legislation. I was trying to keep it doable within existing boundaries.

Hon COLIN HOLT: Yes, and I did not know your background, so I have to assume that what you put down is —

Mr BURNS: I do not have a legal background.

Hon COLIN HOLT: No, nor do I.

Mr BURNS: It is the KISS principle—keep it simple. If we could get away without mandating reporting, if we could have an industry-to-industry agreement, a gentlemen's agreement, that would be far preferable because it has got a better chance of working and much more of a chance of being enforced. In practical terms, who is going to be driving around farms checking on where the boundary fences are in there? It is a practical answer.

Hon COLIN HOLT: Nobody.

The CHAIRMAN: Mr Burns, I did take from what you were saying before that you saw that there was responsibility on both sides of the fence—that is for the GM farmer and for the organic or biodynamic farmer as well. You are not suggesting that it is only a one-way street when it comes to these boundary and exclusion zones. Would you suggest that it should be mandated for organic farmers who are aware that their neighbour is farming GM that they also have a mandated boundary so that each farmer is having to meet half the total boundary requirements or the gap?

Mr BURNS: Yes, fair is fair—fifty—fifty, absolutely.

The CHAIRMAN: In relation to what you do, you said you are an orchardist and obviously you farm organically and biodynamically. What is the premium that you get for farming that way as opposed to if you were not organic or biodynamic?

Mr BURNS: If I may give a long answer, last year there was a glut of fruit. Most of my neighbours could not sell their fruit; they were dumping it. Normally, I would be selling apples for \$4 a kilo and plums for \$3 a kilo and my neighbours would be getting \$1 a kilo. My prices went down and I was getting what they are getting, but I sold. I had a bad year and they had a disastrous year; trees were being pushed down. I am in a niche market. It is fragile. I export pears to Victoria because the local market is too small, and I only grow 10 tonnes. It is a very small market and I have to market very carefully. Commercially, I am not making a great deal of money. I do it because I enjoy being on the tractor.

Hon COLIN HOLT: It is a lifestyle choice, like most farmers.

Mr BURNS: Lifestyle.

The CHAIRMAN: I think you said you were in the Pickering valley, did you not?

Mr BURNS: Pickering Brook, yes.

The CHAIRMAN: Which is a very nice part of the area, so I am not surprised you like to be on the tractor out that way. It is funny, and this is completely off topic, but most of the people we speak to farm outside of the metropolitan region. The east metropolitan members of the council do not actually get many people in, but you actually fall into our electorate. I just thought that was an interesting side note for our country members, who are dealing with these issues, obviously, with their constituents all the time.

[10.40 am]

Hon COLIN HOLT: Just coming back to what you are asking for in the last part of your submission or responses to our questions, you have in there "adoption of a European-style model for compensation". Is there any particular jurisdiction in Europe that you would think is the most applicable?

Mr BURNS: The problem is that if we adopt the Evers bill, then levies can be raised only federally, so it needs federal legislation. For a statewide compensation model, we would have to look at it being state funded with cost recovery. My preference is not to increase the impost on the state Treasury, but I think for a state model that would have to be—we are self-sufficient-type farmers; it is a self-sufficient resource coming through. I think we would have to look at a cost-recovery basis. Given that we are talking high-risk, extremely low frequency, that would not be significant. I am not a lawyer, but I think it would be fairly obvious if there was a contamination outbreak where it had come from, so I do not think causality would be that hard to prove. You gentlemen would probably know that better than I.

Hon COLIN HOLT: Yes. I understand that is the preference to the Evers bill, but you did say the adoption of a European-style model for compensation. If we are talking about a model for adoption here, which jurisdiction in Europe do you think we should model it on?

The CHAIRMAN: Do you have a specific European model? Obviously, there is not a single European system. There are different systems in the different jurisdictions. Some of them have nothing, of course, and some of them have —

Mr BURNS: I think it was the Danish one. I think it was the Danes that had the cost-recovery one. I may be wrong.

The CHAIRMAN: Perhaps we can put that one as a question on notice for you and that way you can give full consideration to your answer. That will be question on notice 3: which European system do you propose would be the one that we should model any system that we might adopt on?

Mr Burns, I appreciate you coming in today all the way from Pickering Brook. Thank you for attending today. A transcript of this hearing will be forwarded to you for correction. If you believe that any corrections should be made because of typographical or transcription errors, please indicate these corrections on the transcript. The committee requests that you provide your answers to the questions that have been taken on notice when you return your corrected transcript of evidence. If you want to provide any additional information or elaborate on any particular points, you may provide supplementary evidence for the committee's consideration when you return your corrected transcript of evidence. Thank you for your time today, Mr Burns.

Mr BURNS: Thank you.

Hearing concluded at 10.43 am
