



**H E X I M A**

**Hexima Limited ABN 64 079 319 314**

**Annual General Meeting**

**30 November 2007**

**Managing Director  
& Chief Science Officer's Address**

Level 5  
114 William Street  
Melbourne VIC 3000  
Telephone 61 3 8629 2929  
Fax 61 3 8629 2990

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***Mr Dan O'Brien, Managing Director***

Thank you Steven.

My name is Dan O'Brien and I am the Chief Executive Officer of Hexima Limited.

It is a pleasure to present an update on the progress of your Company at this our first AGM as a public company.

**SLIDE 2 - Agenda**

Today I am going to share the stage with Professor Adrienne Clarke and together we will cover the following agenda.

Firstly, I will set the scene by giving an overview of the Global Agriculture Sector and, within that sector, the growth in demand for Ag-biotech Traits or technologies.

Adrienne will then give us a Science update including, importantly, an introduction to the Hexima team and an overview of how we are organized. She will also update you on the progress with our technologies.

I will then give an update on the Company's commercial strategy, a review of our progress to date and, importantly, set some expectations for 2008.

**Slide 3**

The sector in which Hexima operates is the global agricultural market.

## **Slide 4**

Let's start with an overview of global Agriculture.

Agriculture is the world's largest business by any measure.

The most important agricultural market is the grain market. The availability and price of grains drives the price of the other agricultural products such as milk, chicken, beef and pork, which are all effectively processed grain.

During the past two years global grain stocks have reached historically low levels as measured in days of supply.

As a result, there have been significant price increases. Importantly the price of corn has increased by 75% and the price of wheat by 95% in the past two years.

Four forces are having a powerful effect on these markets:

- Population Growth;
- Increased affluence;
- Land and water scarcity; and,
- Bio-fuels legislation.

These forces are not seasonal! Global demand for grain in 2040 is forecast to be twice the current level of production.

There is a shortage of agricultural land and it is likely that more than 100% of the sustainable supply of water for agriculture is now being used in agriculture.

An important question is "How will the necessary grain production be achieved?"

## **Slide 5**

After several decades of relatively low prices for grain (largely driven by US and EU subsidies) farming has become more profitable. (Except if you are experiencing the drought in parts of South Eastern Australia!)

Farmers are constantly looking to improve profitability by increasing yield.

You can see from this chart that expenditure on fertilizer by US farmers has increased significantly in recent years. But the most spectacular growth in expenditure in the past five years has been on seeds. Farmers are prepared to pay a premium for new seeds with inbuilt trait technology. This trait technology is reducing the farmer's costs, reducing risk and increasing yields.

## **Slide 6**

I have included this slide to illustrate the choices available to farmers as a result of Ag-biotechnology.

If a corn farmer in the USA or a cotton farmer in Australia, or after the announcements this week, a canola farmer in Victoria, walks into his local seed store he is presented with the choice of purchasing traditional seed, or seed which contains one or more Trait technologies.

The two key traits available today are insect resistance and herbicide tolerance. If the farmer wishes to use these traits, he signs a simple one year licence agreement, nominates the GPS co-ordinates of the field in which the crop will be grown and pays a separate "trait" fee for the use of the trait.

Why do farmers choose to plant GM crops?

The answer is clear: adoption of this technology improves farmers' profitability.

Farmers get three benefits:

- lower input costs (tangible and easy to measure);
- increased yield; and,
- lower risk.

The pricing structure is simple. Trait providers have a strategy of harvesting 30 to 50% of the value created by their technology. Farmers understand that they get to keep more than 50% of the value created. This is a good investment for farmers.

## **Slide 7**

Prior to 1996 Ag-biotech traits were not commercially available.

The rapid adoption of this technology by farmers globally has been spectacular by any measure.

The total number of hectares sown to biotech crops has grown at 13% compound over the past 5 years and the rate of growth is accelerating. In 2006 more than 100 million hectares were planted to ag-biotech or GM crops.

More spectacular is the growth in the value of this market which was more than \$US6 billion in 2006. In recent years the value of this market has grown at 15% p.a. and the rate of growth is accelerating.

## **Slide 8.**

Will this market continue to grow?

The answer is "yes" as growth is happening along three axes.

- Countries;
- Crops; and,
- New traits or technologies.

### **Slide 9.**

With the announcement this week of the lifting of the Victorian and NSW moratoria on GM food crops, I thought it would be a good idea to include a couple of slides explaining the current situation in Europe and Victoria.

Several GM crops have been approved for cultivation in EU and most of the existing GM grains have been approved for import and use for animal feed and in many cases for human consumption.

However, not unlike the situation in Victoria, the adoption of the technology has been restricted by country and by local regulations.

European Farmers are watching as their competitors in the USA, Canada and Latin America are rapidly increasing average yields and therefore decreasing production costs.

At the same time, these competitors are able to sell their products into the European markets in competition with the European farmers. Anti-GM campaigners talk about a premium for non-GM product but the facts suggest that there is no difference in price.

Since 2002 corn yields in the USA and Argentina have increased 4% p.a., but yields in the EU have stagnated.

### **Slide 10**

Despite the hurdles facing European farmers, they are adopting GM technologies (albeit from a low base) and the benefits of the technology to the farmers and to the environment are becoming more apparent.

Importantly, the European corn borer affected 25% of the EU corn crop last year and despite heavy applications of chemical pesticides, control is difficult and damage is significant. Trait protection is effective against this pest.

### **Slide 11**

Prior to the announcements this week Australian Canola growers were facing a similar situation.

They are higher cost producers and there is no premium for non-GM product.

### **Slide 12**

And now I will hand over to Adrienne.

### ***Professor Adrienne Clarke, Deputy Chairman & Chief Science Officer***

Thank you Dan.

### **SLIDE 13**

Hexima has three technologies in development. These are firstly technology to give plants resistance to insect attack, secondly to give plants resistance to fungal diseases, and thirdly we have a technology for delivery of multiple proteins into a plant. We also have a strong pipeline of technologies at an early stage of development.

### **SLIDE 14**

Our research and development is undertaken under contract at both The University of Melbourne and to La Trobe University.

### **SLIDE 15**

At La Trobe University the research is based in the Biochemistry Department under the direction of Professor Marilyn Anderson, Senior Vice President of Research & Discovery. There are two main groups – Insect Protection led by Dr Kerry Dunse and Pathogen Protection led by Dr Fung Lay.

### **SLIDE 16**

At The University of Melbourne the research is based in the School of Botany under the direction of Dr Robyn Heath, Senior Vice President of Development. Two senior members of her team are Mr Bruce McGinness who is in charge of Glasshouse and Seed Production and Dr Simon Poon who leads our molecular biology program.

### **SLIDE 17**

Our field trials are directed from The University of Melbourne by Dr Jillian Hinch who works closely with our Regulatory and Compliance Manager, Dr Yolanda Gaspar.

## **SLIDE 18**

A critical part of our value resides in our Intellectual Property portfolio. This is overseen by Dr Susanna Herd working in collaboration with our IP Manager, Miss Heather Garton. We work closely with two firms of Patent Attorneys; Davies Collison Cave in Australia, and Greenlee Winner & Sullivan in the USA.

## **SLIDE 19**

Turning to our individual technologies.

## **SLIDE 20**

This slide shows our 2006-07 trial for resistance to insect attack. This was planted in Queensland.

## **SLIDE 21**

Leading up to this 2006-07 trial, were two preliminary trials in Queensland in 2004-05 and 2005-06 growing seasons. The largest trial was in the last growing season. The cotton plants containing our technology produced more bolls per plant and matured earlier than plants not containing the technology. We now have the second generation of our insect technology in development which we anticipate will enhance its effectiveness.

## **SLIDE 22**

This slide shows part of the insect trial in Queensland last year. The plants on the right hand side contain the technology and those on the left hand side do not. It's quite clear that there are more bolls on the plants containing the technology than the control plants. The horizontal white line shows the boundary of the trial.

## **SLIDE 23**

Turning now to our technology for resistance to fungal diseases.

## **SLIDE 24**

This technology has also been tested in cotton. The first trial was planted in Queensland last year in a test site which is infected with the fungus which causes Fusarium wilt. The trial plot is the central panel.

## **SLIDE 25**

Closer up, it's quite obvious that the plants in the central row which contain the technology (defensin) have a much higher survival rate than the plants on the adjacent rows which do not contain the technology.

## **SLIDE 26**

Overall, when the trial was completed, it was clear that the technology gave advantages to the test plants. There was almost three times the survival rate compared with control plants. The surviving plants had more bolls per plant and hence gave a higher yield per plant.

## **SLIDE 27**

This year we have planted three field trials. One is to repeat the 2006-07 trial for control of Fusarium wilt and the other two are to test the effectiveness of our technology against other fungal diseases.

## **SLIDE 28**

Turning now to MGEV, which is our technology for delivery of multiple proteins to plants – the Multi Gene Expression Vehicle.

## **SLIDE 29**

Our initial PI technology was based on this hexameric structure which included four inhibitors for the insect digestive enzyme trypsin and two for the digestive enzyme chymotrypsin. These proteins are connected by a linker, which is cleaved in the plant to release the individual inhibitor proteins. We have been able to replace a number of these inhibitor proteins with other desirable proteins. This is possible because the linker between adjacent proteins is very flexible and can accommodate proteins of different sizes and shapes. Using this technology we have been able to deliver multiple proteins to different plant species.

## **SLIDE 30**

Our technology is protected through the Patent system in Australia and internationally. We lodged two new applications during 2007. These form the basis of two new patent families. Our portfolio now includes 8 separate patent families. Within this portfolio we have 25 issued patents and 35 patent applications at various stages of the examination process in various jurisdictions. We have lodged patent applications in countries which include key target markets.

We continue to build and strengthen our portfolio.

Thank you.

## ***Mr Dan O'Brien, Managing Director***

### **Slide 31**

Thank you Adrienne. The issue which I will now address is “How is Hexima able to create value for shareholders (in the form of dollars!) from the excellent science that our team has developed and patented?”

### **Slide 32**

At the most theoretical level our technology could be used to protect all crops in all geographies. We can address any of these market opportunities, but we definitely cannot address them all.

We have researched all of the most important markets and ranked them after considering three key criteria:

1. The total size and value of production of each crop in each geography;
2. The cost to farmers of the pests by crop and by geography (relevant to Hexima is the cost of damage due to insects and fungi); and,
3. The commercial viability of each market which takes into consideration the level of adoption of the technology by farmers, the status of IP protection laws and the structure of the industry.

We have identified the six most attractive initial target markets:

- US Corn
- US Soy
- Brazil Soy
- North American Canola
- North American Cotton
- and Brazil Corn

All stand out as being large areas of high value crops which are currently subject to significant damage by the problems which our technologies address. Furthermore farmers in these key target markets have readily and now almost completely accepted GM technology.

As an Australian company we are also interested in developing our technology for Australian farmers, initially in canola and cotton.

### **Slide 33**

With whom does Hexima have to partner to tap into these markets?

The major global agribusiness companies who share the very profitable (but slow growing) ag-chemical business are investing heavily in this market. Why are they investing?

With 2006 sales of more than \$US6 billion and growing at nearly 20%, this is an attractive market! These companies are also attracted by the potential profitability of this market.

The structure of the industry and the fact that these companies are competing for market share is important. They have invested heavily in seed businesses and have a huge investment in a very effective sales and distribution platforms which provides them with access to farmers in most countries.

#### **Slide 34**

Despite the level of investment in Ag R&D, the big companies do not have a good track record with innovation and discovery. In fact, not one of the key technologies on sale in this sector today were discovered by the big companies. They were acquired or licensed from smaller trait development companies.

The business model in this industry is developing in a very similar way to the human pharmaceutical business.

This model fits well with Hexima's strategy.

#### **Slide 35.**

This slide looks at the relative market shares of the key players in the global crop seed market.

Market share in this business for the past few years is being driven by technology. Farmers are acquiring the seed with the best technology.

Take for instance the largest market: corn seed in the USA. In recent years market share has been driven by the availability and performance of trait technologies.

### **Slide 36**

We appreciate the need to provide investors with an insight into our strategy. We also need to provide assurance that we continue to achieve progress with our technology and with our commercial negotiations.

This is a relatively complicated slide but it shows where each of our insect resistance and fungal resistance traits are up to in the development program.

The vertical red lines indicate the key milestones.

Both insect resistance and fungal resistance are well past the proof of concept and each has been successful in field trials in cotton in Australia. With respect to our insect resistance technology, we have passed the next important milestone and established collaboration agreements with several of the major companies. Under these agreements we are developing our technology in the crops of interest to our partners. These agreements enable us to test the efficacy of our technology against their pests under their field conditions.

Our fungal resistance technology performed very well in field trials in cotton in Queensland which were completed in May this year.

We are now in discussions several potential partners about further development of our fungal resistance trait in several crops and several geographies.

### **Slide 37**

We hope to be able to announce one or more important collaboration agreements in the medium term.

The most important milestone for Hexima will be the execution of a definitive commercialization agreement. We believe that we will be best able to negotiate a deal which maximizes the value for our shareholders after we are able to demonstrate via our collaboration agreements that our technology provides an effective solution for key crops in the important geographies.

The Hexima Board, having the knowledge of the results to date in the laboratory, the glasshouse and in the field, is confident that our technologies will perform well and be valuable. We are determined to retain 100% control of our IP until we are in a position to secure for our shareholders an appropriate share of that value!

### **Slide 38**

Having completed a successful IPO, Hexima is now in a very strong financial position. As of today we have \$38 million dollars on deposit. As we have publicly stated before, our plan anticipates a net investment of \$6 to \$8 million dollars per annum.

We now have the capital to implement our strategy and we have a clear plan, we have an outstanding team, we have been successful not only in the development of our technologies but also in developing relationships with some important partners with whom we hope to access the global markets for our products.

I take this opportunity to thank the outstanding and committed Hexima team, who have together made this an important and successful year for the company.

### **Slide 39**

My closing comments:

Hexima's technologies address a large and growing global market.

Hexima has an excellent scientific team and we continue to make positive developments with our technologies.

We are implementing a clear plan to take our technologies to market and thereby create value for you our shareholders.

Following a successful IPO we have the financial strength to implement our strategy.

Expect to hear some positive announcements in 2008 as we develop some exciting and valuable collaborations.

For more information, please contact:

Mr GF Dan O'Brien  
Managing Director  
Hexima Limited  
(03) 8629 2929