



Hexima Builds Value by Achieving Technological and Commercial Milestones

Progress over the first half of the 2009/10 financial year has proceeded in line with the Company's expectations. Achievements for the half year include:

- Recognition of achievement of all technical milestones in the one year review of the collaboration with DuPont subsidiary, Pioneer Hi-Bred International (Pioneer);
- Execution of a research licence and commercial option in February 2010 with Monsanto Company for the MGEV technology to assess its effectiveness in facilitating the expression and processing of multiple genes of interest in corn, soy and other plant species;
- Execution of a research licence in August for the MGEV enabling technology with Pioneer for use outside the disease collaboration;
- Commissioning of corn transformation facility provides capacity for disease program to move into glasshouse testing;
- Completion of the third year of successful fungal resistance cotton field trials; and
- Extension of the human applications program due to promising initial results.



Technological and Commercial Progress

Pioneer fungal disease program meets technical milestones in first year review

A significant amount of the Company's scientific effort is devoted to the fungal disease collaboration in corn with Pioneer, where the path to market has been established. This program builds upon the success of Hexima's antifungal technology in cotton field trials over three seasons, which delivered at least 70% higher plant survival rates and more than doubled the lint yields compared to the non-GM control. The Company is pleased to report that the first year technical and management committee reviews of the program, held at Pioneer facilities in Iowa, were very positive with Hexima achieving all technical milestones.

There are 5 major steps in the fungal disease program to be completed before the technology moves into commercial development within Pioneer. They are:

- Identification of key anti-fungal proteins (protein bioassay team);
- Development of the genetic constructs to be incorporated into the transgenic plants (construct/gene analysis team);
- Establishment of efficient corn transformation and production of transgenic plants (corn transformation team);
- Glasshouse assessment and seed production (glasshouse team); and
- Testing of the transgenic plants for resistance to key fungal pathogens (plant bioassay team).

These activities naturally overlap to achieve optimal efficiency. Over the first 12-18 months of the program, the protein bioassay team has focused on identifying the anti-fungal proteins required to control the major corn pathogens. Several genes have been transferred to the construct team for production of gene constructs and expression analysis. At the same time the glasshouse and corn transformation teams have been developing their skills in producing transgenic corn plants.

Technological and Commercial Progress

continued

Hexima commissions corn transformation facility as disease program enters glasshouse testing

Hexima's new corn transformation facility, comprising extensive additional glasshouse space, growth rooms and laboratories for tissue culture and analysis at La Trobe University's R&D Park, was completed in early February 2010. The facility was finished on time and on budget.

This new facility will greatly increase Hexima's overall capacity and will provide the much needed space to house the significant expansion in the production of transgenic corn plants that will be generated under the Pioneer fungal disease program. Hexima expects to produce approximately 10,000 transgenic plants in calendar year 2010, which will be subjected to rolling bioassays as specific gene constructs are tested for efficacy against corn pathogens. To achieve this goal, the plant bioassay team is developing procedures for rapid assessment of the transgenic plants for enhanced tolerance/resistance to disease. These procedures focus on symptom development and quantification and will enable the team to screen a large number of plants efficiently.

Market seeks novel modes of action to combat insect pests

Insects continue to be one of the greatest threats to crops. The existing *Bt* range of GM products for insect control have delivered huge value to farmers but seed companies continue to monitor their performance carefully in light of the potential for the development of *Bt* resistant pests. A novel mode of action for insect control is likely to become an important tool in this market.

Hexima is developing insect control technology that focuses on novel modes of action based on proteinase inhibitors and other proprietary molecules.

MGEV enabling technology is in the hands of the two industry leaders

The Multi-Gene Expression Vehicle (MGEV) is a protein stacking and expression tool that can be used in a range of crops. Hexima's strategy is to expose the MGEV to a range of industry partners through broad, non-exclusive licensing arrangements. The Company is delivering on this strategy, with two non-exclusive licenses entered into since the start of the financial year with the world's two largest ag-biotechnology companies.

In August, Hexima announced it had entered into a non-exclusive research agreement with Pioneer for the use of Hexima's MGEV technology in corn and soybean. As part of this agreement, which is separate from the disease collaboration, Pioneer is evaluating the utility of the MGEV in expressing other proprietary genes.

In February 2010, Hexima entered into a further non-exclusive research and commercialisation cross-license agreement with Monsanto Company. As part of this agreement, Monsanto has obtained a research license and commercial option to Hexima's MGEV technology to assess its effectiveness in facilitating the expression and processing of multiple genes of interest in corn, soy and other plant species.

Hexima aims to commercialise the MGEV technology through a broad licensing strategy and these licences with Pioneer and Monsanto will play an important role in the evaluation of the technology in a range of commercial applications. MGEV also plays an important role in the internal development of the Company's disease and insect control platforms.

In addition to the announceable achievements listed, Hexima continues to grow its intellectual portfolio with the filing of a new patent family. A further 3 patents were granted over the past six months.



Hexima to benefit from R&D tax credit legislation

As at 31 December 2009, Hexima had approximately \$26 million in cash (and interest receivable), which equates to more than three years of funding, taking into account the impact of the proposed R&D tax credit legislation to be introduced from the 2010/11 financial year.

Net cash usage for the six months was \$4.694 million compared with \$3.734 million (excluding financing activities) in the prior corresponding period. The increase in cash outflow results from higher capital expenditure of \$1.3 million relating to the construction of a new glasshouse facility to house the Company's anti-fungal corn program.

Hexima recorded a loss of \$3.057 million for the six months ended 31 December 2009, compared with a loss of \$8.512 million for the previous corresponding period. Excluding net finance expense and income tax expense, the loss from operating activities for the six months was \$3.577 million, compared with \$9.849 million for the previous corresponding period. The loss of \$9.849 million in 2008 includes a non-cash research and development expense of \$6.0 million relating to the acquisition of intellectual property assets from Pioneer Hi-Bred International, the consideration for which was the issue of 4,000,000 ordinary shares at \$1.50 per share. Revenue was largely unchanged at \$0.452 million for the six months compared with \$0.408 million for the previous corresponding period.

Excluding the impact of the prior period non-cash research and development expense and the impact of the one-off capital expenditure, the Company's results from operating activities were largely in line with the prior period.

Net finance income for the six months ended 31 December 2009 was \$0.521 million compared with \$1.336 million for the previous corresponding period, reflecting both lower interest rates and the drawdown of funds to meet expenditure.

Hexima continues to invest in its research and development programs with the aim of enhancing shareholder value as the Company reaches milestones defined within the Pioneer fungal disease agreement and continues to develop and commercialise its insect and enabling technology platforms. The draft R&D tax credit legislation, proposed for introduction in the 2010/11 financial year, will greatly enhance Hexima's cash position.

Underlying demand for food will place sustained pressure on prices of agricultural products

The Global Food Crisis continues to shape political and economic agendas for the coming decades. Media focus shifted from food to finance in 2008 and 2009, but the world's population has continued to expand. The growing demand for food has not diminished. Commodity prices are forecast to rise again in 2010, and the Global Financial Crisis has been described as merely a 'pothole' in the agriculture sector's road to 'structurally higher demand' by a Rabobank analyst.¹

In June 2009, the United Nation's Food and Agriculture Organisation held its Expert Meeting on 'How to Feed the World in 2050'.

FAO's latest projections indicate that global agricultural production must grow by 70 percent by 2050 in order to feed an additional 2.3 billion people.

Most gains in production are expected to be achieved by increasing yield and cropping intensity on existing farmlands rather than by increasing the amount of land brought under agricultural production.

For developing countries, FAO estimates that 80% of the required production increases will be delivered by augmenting yields and cropping intensity. But in land-scarce countries, almost all growth would need to be achieved by improving yields.²

What does this mean for the agricultural sector? It suggests ongoing demand and strong pricing for food, feed, fibre and fuel. Such an environment supports continued investment in technology solutions to drive the yield improvements required.

¹ Quoted in AFR, p17, 13 January 2010

² www.fao.org

Corn yields transformed by technology

A brief history of corn demonstrates the power of technology

Corn is the United States' most important commercial crop. For generations, it was the staple diet of natives of North and South America and it was critical to the survival of early western settlers. Today around 150m hectares are grown globally.

Since the earliest agricultural times, farmers have constantly selected and nurtured the best strains. They improved crops by selecting seed from the most productive and hardy plants for their next crop. With advances in the understanding of evolution and genetics arising from the work of Darwin and Mendel in the late 19th century, scientists began a systematic approach to plant breeding which eclipsed earlier efforts to increase yields. The development of hybrid seed is one of plant breeding's greatest success stories. Hybrid seed was first introduced to farmers commercially in the 1930's.

Corn is a prime example of the success of hybridisation, where yields have increased from 26 to over 130 bushels per acre since 1929¹. The adoption of hybrid seed involved a revolution in agriculture. Previously farms had been largely small, self-sufficient, family concerns. Seed was saved from one season to the next and very few goods were purchased. In the United States today almost all corn is grown from hybrid seed. Hybrid seed loses its vigour in subsequent generations and, consequently, must be purchased from seed breeders each year. Farmers adopted hybrid seed because they share in the improvements in productivity. These lessons have been applied in the next great plant breeding revolution, genetic modification. Once again, the underlying strength of the technology, together with a business model where farmers share in the value, explains the rapidity of adoption of GM technologies. From their introduction in 1996, GM seed is now grown in 25 countries and GM corn accounts for approximately one quarter of the global growing area.

¹ Travels in the Genetically Modified Zone, Mark Winston, 2002, page20

Forward Looking Statements

Certain statements in this Report relate to the future, including forward looking statements relating to Hexima's future expectations, beliefs, goals, plans, prospects, financial position and strategy. These forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of Hexima to be materially different from future results, performance or achievements expressed or implied by such statements. Neither Hexima nor any other person gives any representation, assurance or guarantee that the occurrence expressed or implied in any forward looking statements in this document will actually occur and you are cautioned not to place undue reliance on such forward looking statements.

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