

# The Challenges Ahead

*John W Chudleigh, Analysing Agriculture, Orange, NSW*

## Introduction

Uncertainty has taken on a new and more significant meaning over the last year as the world, as we have come to know it, undergoes a dramatic and probably everlasting change. The USA financial crisis spread to become a world financial crisis, which has led to a world economic downturn. This has coincided with a time when agriculture appeared to be potentially entering a new golden age in providing for an accelerating demand for protein and energy as world economic prosperity grew rapidly. The collapse in the commodity markets, the dramatic slowing in world economic growth forecast for 2009 and the financial uncertainty about capital values of share markets and real estate has stunned most. When combined with the dilemma of determining what can and should be done to ease the possible effects of climate change, the challenges ahead can seem insurmountable.

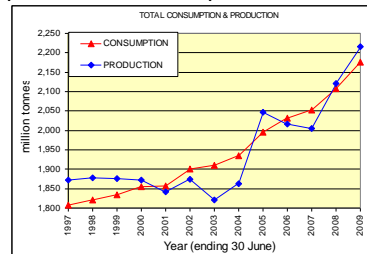
Although the changes likely to occur over the longer term as a result of the financial crisis will be profound in investment circles they will not, I believe, alter some of the inevitable developments that were occurring before the crisis hit. One of these inevitabilities, to me, was the developing readjustment of world agricultural prices to better reflect the cost of production and to allow a significant reinvestment into agricultural infrastructure worldwide. It is only this outcome that can satisfy the continuing growth in world demand for food. The key challenge then is to develop production methods that can optimise the long-term productivity of our land as well as capitalise on the era of higher and more profitable prices that will occur.

This paper is thus designed to identify the reasons for optimism about world grain markets, the challenges that could evolve as a result of changing technology as well as world economic changes and climate variability.

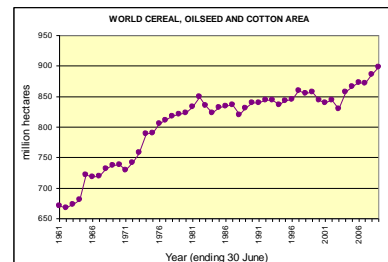
## The World Grain Production Challenge

In six of the last nine years, total cereal grain production has not kept pace with consumption increases and it is only over 2007/08 and potentially in 2008/09 that the downward drift in world stocks has been arrested. Production increases in the last two years have been significant and put lie to any suggestion that land degradation or climate change are part of the reason for the jump in grain prices earlier this year.

After 1982 and up to 2003 the area of cereal grains produced fell constantly as oilseed area increased.



During these 21 years the total area of all major field crops harvested remained fairly constant at between 820 million hectares (mha) and 860 mha. The crops included in this total include all coarse grains, wheat, rice, cotton, peanuts, canola, soybeans and sunflower. There have been increases in other crop areas but these are minor compared to this total. Since 2004, when the area of these crops harvested reached 857 mha, the area has risen to reach 898.6 mha in 2008/09. The world has thus grown record areas in each year since 2004, except for 2006/07, and has found another 41.6 mha to crop.

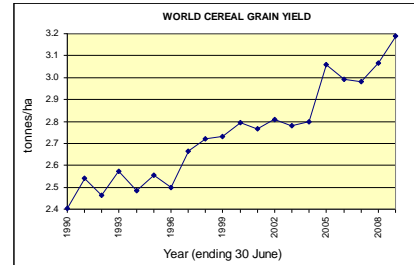


The key question now is whether the world can find more area to crop or whether the existing area will need to continue to increase yields to satisfy growing demand. Despite the generally accepted prognosis that there is no more suitable land, my assessment is that there

is at least a potential of another 80 mha, which could be brought into production worldwide. This would require the reclamation or development of land currently uneconomical to use, an increase in irrigation areas where possible and an increase in double cropping and the release of all set aside in the USA.

In addition to the area already added, the yield of the cereals has also reached a new record in 2008/09 at an average of 3.19 tonnes/hectare (t/ha) when the previous record was 3.06 t/ha in 2007/08. So the 2008/09 cereal crop has resulted from the largest area of cereals since 2003 and a record yield.

Stocks of the cereals are up by 52 Mt on the level held in 2007 and this has taken some pressure off prices in the short term. Stocks of all cereals still represent only 18% of annual use.



The increase in world consumption of cereals has been accelerated by the increased use of corn for ethanol production, which in the USA is about 97 Mt in 2008/09. This is expected to rise to about 150 Mt by 2015 and then stabilise about that level as more biomass and other biological sources provide for the growth still expected in ethanol production. Increasing use for stock feed as well as ethanol use will demand a continuing rise in world cereal production.

A continuation of increased production will only be achieved by greater profitability of grain production allowing the added investment in technology, infrastructure and education to be undertaken.

### **The On-Farm Production Challenge**

No matter how profitable wheat becomes for a short period, longer-term profitability will always depend on being at the cutting edge of technology and this is what this Update is mainly about. However the potential for higher prices needed to encourage increased production may cause a rethink of some on-farm production techniques.

If climate change does establish a drier pattern in some areas, those areas will need to concentrate more on water saving and water efficient growing techniques. When wheat is grown in more marginal areas of rainfall, irrespective of climate change, the escalation of costs, and thus the increased financial risk of a crop failure, will make the management of soil moisture all the more important. Older practices such as longer fallows and use of shorter growing season varieties and more water-use efficient varieties will assume a greater role in some production systems.

Over the longer term most grains and oilseeds tend to reach some level of equilibrium in profitability although some districts are better suited to one crop than another. Competition for land use worldwide will become intense and careful planning of the potential profits versus risks, where alternatives are possible, will assume more importance.

Potentially limited irrigation water will become more profitable for use on cereal crops, particularly winter crops, and the use of varieties allowing double cropping in irrigation areas will need careful planning.

### **The Financial Challenge**

After almost 20 years of relatively stable to lower interest rates after the dreadful 1980s, there is every chance that the next 10 years will see much greater variability in interest rates as well as in the value of the A\$ against the US\$.

The current financial crisis is being addressed by one of the greatest periods of money creation ever experienced by the USA and, to a lesser extent, in the UK. Just where this will lead the world is as yet uncertain as the USA will continue to rely on investment of overseas earned US\$ back into the USA to

finance their deficits. This will not continue if the US\$ weakens too much but a weakening US\$ seems inevitable given the credit creation currently in play.

Fear of the value of the US\$ falling substantially over the medium term is behind the forecasts of much higher gold prices as the one store of wealth available to the US investors. Rural land has not been highlighted as yet in investment circles but if agriculture becomes more profitable as I expect then a run on rural land values is likely. Such a run, if it gains momentum, could surprise us all.

The current world credit creation binge significantly increases the risk of inflation becoming rampant over the next five years or so and with it a significant jump in interest rates. While this is not certain it is a significant risk that has not been present for the last 20 years and must be taken into account by those who are borrowing to expand or have significant debt at present.

Uncertainty in financial circles will remain for some years after the worst of the current crisis passes. While this will create opportunities for many it will also increase the risks associated with all business ventures.

Finally the market risk and volatility has been increased by the deregulation of the market in Australia and growth in marketing opportunities. It seems likely that the capacity to warehouse grain after harvest will become more important so that selling can take place when market spikes occur. Prices will continue to be lowest at harvest time in most years.

### **The Challenge of Information**

Well-informed operators can make the best decisions at the time such decisions need to be made. While few of us can predict the future, we owe it to ourselves and our clients to be as well informed as possible in an information saturated world.

Reliable sources of information are essential and these need to be provided by those with no commercial interest in selling or brokering of any of the products or outputs of the industry. Analysing Agriculture is one of those sources that you should consider as I know a number of you do already.

Because the agricultural production system occurs over an extended period the daily movement in prices can be confusing when trying to determine the actual longer-term trend. It is critical to be able to sort the chaff from the straw.

### **Conclusion**

The fundamental developments in the world grain industries suggest that higher prices will be necessary if the world is to meet the increased costs associated with increasing production. Consumption of cereals and oilseeds has increased quite rapidly over the last 10 years and is destined to continue rising.

The additional investment required to ensure production can meet future consumption needs will require higher profits from grain production than have been achieved over the past few decades and the challenges ahead will be focused on capitalising on a more profitable era for cropping as well as ensuring top technology and efficient productive scale is developed in anticipation of the eventual downturn resulting from competition.

The future growing need for food will outweigh most other climatic, production and financial challenges, at least in the short to medium term.

### **Contact**

John Chudleigh  
Ph: 02 6365 5116

Email: [john.chudleigh@analysingagriculture.com](mailto:john.chudleigh@analysingagriculture.com)