

# 10 BIG TRENDS FOR AGRICULTURE

This Insight shares the article of **Jim Carroll – Trends and Innovation Expert** and recognised worldwide as a ‘thought leader’ and authority on: global trends; rapid business model change; business transformation in a period of economic uncertainty; and the necessity for fast paced innovation

According to Jim Carroll, here’s the **Top 10** list of what he sees happening in the Agriculture Industry in the next 30 years.

**1 Massive growth in food demand:** The UK Food and Agriculture Association estimate that the world population will increase 47%, to 8.9 billion, by 2050. That’s a potentially huge food marketplace. That fact, more than anything, spells the reality that the agricultural industry is full of potential opportunity!

**2 Hyper-science:** One of the realities of the infinite idea loop in which we now find ourselves is this: while there are 19 million known chemical substances today, the number is constantly doubling every 13 years... with some 80 million by 2025, and 5 billion by 2100. Science is evolving at a furious pace, and with science at the root of agriculture, we will continue to see constant, relentless new methods of improving crop and livestock yield.

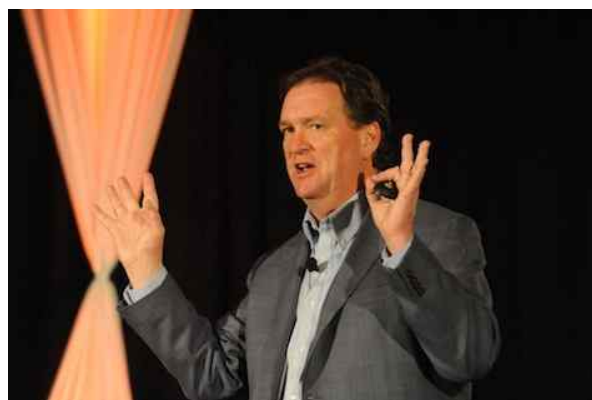
**3 Retail and packaging innovation drive agricultural decisions:** Do this: stare at a banana. Did you know that Chiquita banana has come up with a special membrane that doubles the shelf-life of the product, doing this regulating the flow of gases through the packaging? Take a look at Naturepops: each lollipop is wrapped in fully bio-degradable film made from plant matter, and the bags they come in are made from recycled paper, water-based ink and poly lactic acid made from cornstarch. There’s a huge amount of innovation happening with packaging companies and on the store shelf, and all of these trends have a big impact on agriculture.

**4 The energy opportunity:** Agriculture is set to play a huge role as we wean ourselves away from our dependence on oil and natural gas. The US Department of Energy plans to see alternative fuels provide 5% of the nations energy by 2020, up from 1% today. And it is expected that there will be \$1.2 billion in new income for farmers and rural landowners by getting involved with new energy sources such as windpower. Europe plans to have a market that involves at least 20% usage of bio-fuels by 2020, and Feed & Grain estimates that liquid fuels from agricultural feed could replace 25% to 30% of US petroleum imports by that time.

**5 A continuing ramp-up in efficiency:** Simple fact: global agriculture must double in the next 30 years to sustain this type of population growth. Add this reality check: there is little new arable land in the world. The result is that existing producers will have to continue to focus on smarter, better, more efficient growing in order to meeting demand.

**6 Innovation defines success:** Growers that focus on innovation as a core value will find success; their innovation will focus on the triple-feature need for growth, efficiency and ingestion of new science. It will be by adopting new methodologies, products, partnerships and ideas that they will learn to thrive.

**7 Intelligent packaging moves front and center:** Innovation with packaging will take an even bigger leap in years to come, and will involve hyperconnectivity, a trend that will be driven by food safety, tracability, country of origin and nutrition labelling needs. Our lives are soon to be transformed by packaging that can “connect” to the global data grid that surrounds us; and its’ role will have been transformed from being that of a “container of product” to an intelligent technology that will help us with use of the product, or which will help us address safety and tracability issues.



*Jim Carroll was the keynote speaker for 2011 Texas Cattle Feeders Association annual conference, speaking about the massive growth opportunities in the world of health care. He has headlined a wide variety of agricultural events throughout the industry.*

**8 Convenience and health take center stage:** We will continue to see rapid change in consumer taste and expectations as people come to place more emphasis on doing their best with the little time that they have. For example, it is expected that fresh-cut snacks grew from an \$8.8 billion market in 2003 to \$10.5 billion by 2004, according to the International Fresh-Cut Produce Association, as part of a trend in which produce and fruit continue to compete with traditional snacks. Expect such unique trends to grow both in terms of number and rapidity.

**10 Generational transformation:** perhaps the biggest trend is that we are about to witness a sea-change in the rate by which new ideas in the world of agriculture are accepted, as a new generation of technology-weaned, innovative younger people take over the family farm.

**9 Direct consumer-producer relationships blossom:** As this technology evolves and as people become more concerned about the safety of what they eat, a natural result is a frenetic rate of growth in direct relationships between growers and consumers.

**1 Partnership defines success:** If there is one trend emphasized in every industry involved with, it is that no one individual or organization can know everything there is to know. This trend is also becoming prevalent in agriculture. We will continue to see an increasing number of partnerships between growers and advisers, suppliers, buyers, retailers and just about everyone else, so that they learn to deal with the massive complexities that emerge from rapid change and innovation.

Wait — that's 11 trends! And that's indicative of just how rapidly this industry is set to be transformed.....

For more details about this article, visit [www.jimcarroll.com](http://www.jimcarroll.com)  
<http://www.jimcarroll.com/2005/12/10-big-trends-for-agriculture/#.VFwz-vmUdOh>

- 1 Massive growth in food demand**
- 2 A continuing ramp-up in efficiency**
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- 1 Partnership defines success**



## WHAT DOES THIS MEAN FOR RLF?

The exciting thing about reading the Jim Carroll view on global trends is that RLF has a direct relationship and involvement with most of the points Jim identifies. Here are my views and comments about how RLF really does have a big part to play in these future growth areas of agriculture.

### 1 Massive growth in food demand

*RLF is all about supporting this growth in food demand through the use of RLF products in global agricultural practices – RLF products provide direct support with greater yield potential to help achieve this growth requirement – more than ever RLF products will be needed to keep ahead of this increasing demand – hopefully by adopting RLF integrated fertiliser management practices.*

### 2 Hyper-science

*RLF is all about hyper-science and is leading the way in the agricultural sector through the promotion of its technology products and modern farming practices. The reality in agriculture is that the market is slow to adopt these new achievements – but RLF has, over the last 20 years, achieved the **Trust** from which to **Grow** and then **Yield**.*

### 3 Retail and packaging innovation drive agricultural decisions

*Whilst RLF conforms with industry standards – we have a project that looks to the future of our packaging – hopefully making things better and introducing innovation in the way RLF supplies its products.*

### 4 Convenience and health take center stage

*Jim talks about “Fresh-cut snacks” in his article – and this means fresh, healthy and better produce – and RLF plays a significant part in this area. We have always been able to see the improvements in produce size, qualities and possible even nutrient values through the use of RLF product (just check-out the results section of the website) – so RLF can be a big contributor to this sector.*

### 5 A continuing ramp-up in efficiency

*RLF products are all about improved and increased efficiencies! – at all levels. The **science level** – through things like the increased efficiency of nutrient delivery created with the RLF delivery technologies, subsequent increased cell and plant transfer, rates, increased uptakes and the increased efficiency of lower energy use.*

*At **grower and farmer level** – increased use and application efficiency, increased delivery efficiency both through directly fertilising the seed (~95% efficient) and the leaf (~90% efficient). Plus the fact that RLF products delivery up to 12 nutrient elements in the single product. RLF products are very efficient at this level.*

*At **production level**. The reliability of RLF product results and the plant benefits achieved by using RLF products mean production efficiency are also greatly improved. Everything from better yields, higher quality, root mass and increased soil matter – is about efficiency. RLF ramps-up efficiency.*

### 6 Innovation defines success

*RLF is an innovator. Innovation in products and technologies. RLF innovation will define our future.*

### 7 The energy opportunity

*RLF can play a big part in the efficient practices of the bio-fuels agricultural sector – through its products and its innovative farming practices – efficiency and output will be needed to keep up with demands and reliability of supply – so RLF could have a big part to play.*

### 8 Generational transformation

*We have seen this in many of our markets – generational change has seen the willingness to adopt modern farming practices, such as RLF integrated fertilisers management systems. New technologies and efficiency through using modern products will become more acceptable as farming moves into its new generation. RLF is at the for-front transformations of both the new generation of products and the latest in farm practices.*



## Partnership defines success

*This probably is the most defining forecast made by Jim Carroll and in some ways the most relevant to **RLF**. **RLF** has always been about partnerships – it has had to always achieve this in order to be successful.*

**Formulation partnerships** – **RLF** have had to formulate a partnership between nutrients – with up to 12 nutrients requiring a special chemistry to ensure they all “get-on”;

**Plant partnership** – our products have always needed to partner with the seed and plant. A partnership to provide an optimum balance of nutrient that is safely delivered and always available to the plant in that perfect partnership.

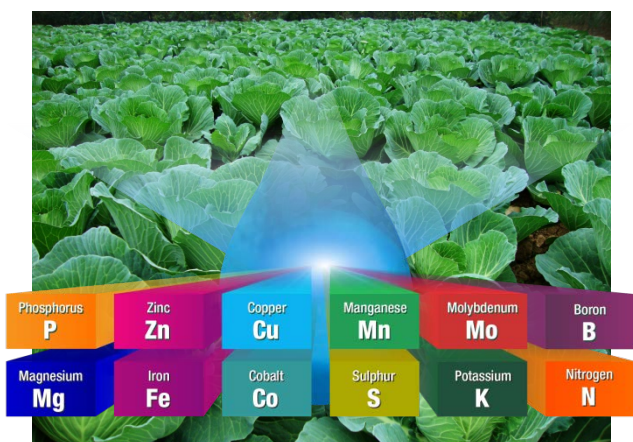
**Grower and farmer partnership** – at every level **RLF** has had to achieve great farmer and grower partnerships – through use and application being easy (and partnered with normal farming practices) to the **RLF** products needing to produce positive and solid economic returns to the growers with a financial partnership. These partnerships have underpinned the success of **RLF** yesterday, today and into the future.

**Distributor partnership** – today as **RLF** looks to further increase its products in new and exciting markets – **RLF** works hard to develop new distribution partnerships through providing our partners with support, marketing and product.

**Team partnership** – and today we focus on building a **RLF** team globally by working in partnership with everyone together in achieving **RLF** ongoing growth and success.

Whilst these are simply my views, I think you could agree that **RLF** is very closely aligned with the global **BIG TRENDS FOR AGRICULTURE**. This is an exciting time ahead for **RLF**.

*Comments by Gavin Ball **RLF***



*We lead the world with broad spectrum high analysis liquid compound fertilisers.*



*Robert Kitto – Grower of Erangry Springs Farm with Grant Borgward – National Sales Manager, Australia*



**TeamRLF** – bringing the global business of **RLF** together.



**RLF** in partnership with OPEX Holdings Sri Lanka at the CAC 2014 World Fertiliser Conference in Shanghai China

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