



## Global Pressures in the Fresh Produce Sector

### Introduction

The Fresh Produce sector is facing challenging times, with reducing prices, increasing costs, scarcer resources and increased legislation. In some countries, crops remain unpicked driving the larger growers to think of ‘upping sticks’ and relocating... not just to the next state but sometimes the next continent. Pepper growers in Texas are moving production to Mexico. Strawberry growers in Europe are relocating to China. Never has there been so much pressure to change. ‘Doing what you always do’ really isn’t an option any longer.

This paper will just scratch the surface of this growing universal problem by highlighting some of the issues Fresh Produce companies are facing.

Technology and automation is sometimes the answer.

ERP (integrated business software that unifies the whole company) can also be part of the solution, and where this seems to be the case, we have highlighted the benefits.

### Customers

In some parts of the world (particularly the UK and much of Europe) the retailers have the fresh supply chain in a stranglehold, increasingly squeezing margins to an almost untenable position. Typically, vegetable growers in the UK operate on 1% margins, and it doesn’t take much of a mishap to wipe that out! Fruit growers do marginally better, but whichever way you analyze the numbers, it is a tough game to be in.

Some retailers are starting to cut out the middlemen, buying direct from the growers in bulk and managing the packing and distribution themselves. In the UK, Morrisons Supermarkets has their own pack-houses. Vertical integration like this is set to continue.

Customer expectations are changing. For many, provenance is everything. ‘Sourced Locally’, ‘Meet our Growers’; are messages now commonplace in restaurants and supermarkets. And some argue this will continue with ‘personalization’ whereby the consumer specifies exactly what they want to

purchase. “I want this apple of this color and this size delivered to my door and priced at 50 cents”.

And some fear that Amazon’s acquisition of Whole Food will deliver just that, possibly changing the face of fresh produce retail forever. Walmart has started charging their customers 1% for payment within 10 days and OHIO and WASHINGTON states are introducing a levy on fresh produce brought into the state for sale.

*We are short staffed across the board... pickers, truck drivers, engineers, machine operators, and it’s serious, it is hindering growth.*

Larry Olsen  
Wisconsin Vegetable Grower



## Labor

It is not so much that labor costs are rising (they are!), it is more that the labor simply isn’t available any more. Brexit has massively reduced the seasonal Eastern European workforce in Britain, the numbers are down 45% year over year. But it isn’t just the UK that has challenges.

If we consider pay rates, each geographic area has its own local challenges. In California the grower is battling with the Dept of Labor and their well-intentioned H-2A visa legislation that sets minimum standards for provision for care for migrant workers; including living conditions, health

care, transportation, as well as free housing and meals. Furthermore, it essentially defines a shorter work week by lowering the threshold at which overtime cuts in. H-2A agricultural employers are among the most heavily regulated and monitored employers in the U.S.

One of the results of labor challenges is an increased demand for automation (more on this issue later).

One final observation about labor is succession. The young and ambitious do not see Agriculture as an exciting opportunity. It isn’t as ‘sexy’ as IT. And with a lack of trainees, the leaders of tomorrow are not being trained.



## Automation

With the labor challenges detailed above, demand for automation is increasing, particularly on the factory floor, out in the fields and in the offices. Automated picking machines are becoming available but not universally. For example, there is little automation to help pick strawberries.

And as we have seen above, investing millions in automation is only worthwhile if you can get the staff to man it.

Packhouse automation is well developed. Compaq and others offer powerful solutions to the technology hungry grower.

Take a look at Compaq's case study for Fowler Packing: <https://content.compacsort.com/citrus>. Fowler Packing packs more than 450,000 bags of citrus per day, and their production line makes the most out of every minute of the day. Fowler Packing has invested heavily in creating a production line that utilizes robotics

and technology from around the world, making it one of the most advanced packing lines in the United States. Fowler Packing has also deployed a fully integrated ERP solution from LINKFRESH to optimize and manage their production operations.

Out in the fields the use of hand held computer technology is increasing – vital in an environment where real time collection of data is essential. But, that said, the nature of farming means we are not often blessed with good communications network coverage, so hand-held technology needs to be able to 'synch' automatically and seamlessly, so that data collection continues even when the internet signal decays.

Another factor driving the adoption of technology is the generational change that is happening in the ownership of the fresh produce companies. The younger generation is now joining the management team, fresh with new ideas and familiar with technology, and keen to make an impact. As the 'old guard' stands down in favor of youth, adoption of technology increases.



## **Sam Parnagian at Fowler Packing comments:**

*“Our goals are to improve accuracy and quality and to reduce labor and costs. We use technology to gain a competitive edge; we want to remain the lowest cost packer with a quality and consistent product. We currently pack only 5% for outside growers but with our capacity, we can now expand the amount of third party packing we can handle. With imaging, we now have better defects data; we can see daily which ranches are sending*

*us damaged fruit and we can take that data directly to the ranch to address the problem. Without consistency, consumers lose faith in the product. Food safety is a massive issue too. Our modern graders have hygiene packages that make it quick and easy to clean and sanitize. When Walmart comes in and see our technology it gives them great confidence to buy from us. But, you know what, saving a couple of cents here and there is nothing compared to having happy customers and retail chains.”*



## **Compliance**

Food safety scares, increased chemical usage and resource scarcity are all driving an increase in legislation and the need for the fresh produce company to comply, and be seen to comply with laws and regulations.

The need to monitor and collect data, and to report and analyze data is also increasing. Some areas are so complex and technical that one-off ‘point solutions’ are being developed to address specific requirements. Other simpler areas can be addressed by generic ERP solutions or spreadsheets.



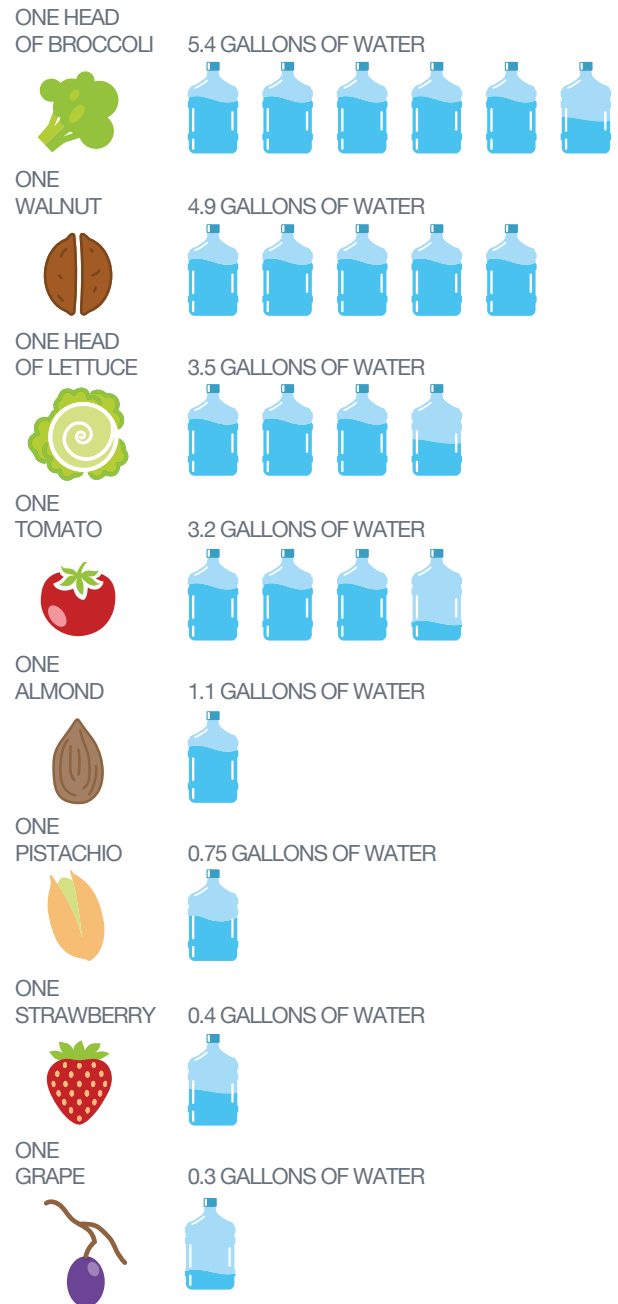
## Water

It isn't just the hotter climates where water management is a challenge. Even in cooler growing areas, water quality is a challenge, and gaining permission to drill more wells is becoming more difficult. Limitations on the amount of water that can be pumped are not uncommon. And sometimes it's just the grower with the largest pump who wins the local water-wars.

Driving through the growing areas in a 'hot climate growing region' and seeing the widespread spraying of water across crops does make you wonder about the effectiveness of 'flood irrigation'. Statistics suggest that only 40% of flood irrigation water actually reaches the plants. It is thus no surprise that in many areas growers are moving to 'drip' irrigation which is costlier to install but cheaper in the long run. Hydroponics must ultimately be a winner as and when it becomes commercially viable to grow hydroponically on a large scale.

It is quite surprising how much water it takes to grow a lettuce or an almond. The table opposite provides some indication.

## HOW THIRSTY IS YOUR FOOD?





## WHAT IS ERP?

### *...AND IS IT A SOLUTION TO THE ABOVE?*

The answer is, YES, 'in part'.

ERP or Enterprise Resource Planning is a business software package aimed at addressing and integrating all the operations of a business. The process of implementing such a package will drive a business transformation, as you can only successfully implement an integrated business system if you create an integrated business. So the implementation drives change and unification usually to great benefit. The results are greater visibility of operations, better information for decision making, tighter cost control leading to improved profits, etc.

In relation to the matter in hand, ERP can help in a number of ways:

**CONTROL** - As businesses are squeezed by reducing prices and increasing costs, better control systems are essential if profitability is to be maintained or improved.

**COMPLIANCE AND REPORTING** - Collecting and analyzing data is the very foundation of an ERP system, so whether it is chemical and additive compliance for growers, or labor analysis and reporting, the ERP system will not only help with this, it will do so in a coherent and integrated manner, with data only being entered or collected once ensuring we are living off 'one version of the truth'.

**TRACEABILITY** is an increasingly worry-some topic around the globe, and having full traceability as a by-product of implementing the ERP system is in itself the main objective of some ERP implementers. For the fresh produce sector, traceability is particularly complex with multiple sources of raw materials being received by a processing plant or pack house with the end product then being distributed to many outlets.

**AUTOMATION** – the ERP system is probably being implemented by companies who understand the need for and benefit of automation. With modern pack house and processing machinery it is possible to read data directly from the equipment itself, removing the need for much manual entry. Such data is generally more accurate than human interpretation, and by definition, is collected in 'real time'. Similarly having integrated mobile data capture for collecting real time data in the plant or out on in the fields is a real benefit. Fresh produce companies need an ERP system that operates in 'real time'. Implementing a traditional ERP system that plans to weak numbers is no good at all.

**SPEED** - Fresh produce can decay in a matter of hours. Timeliness is key! If a fork lift truck driver picking a pallet of strawberries sees they are not fit for sale, he or she needs to know where in the warehouse can they source similar strawberries, grown to the same accreditation standards and quality, and they need that information in real time now. The truck is leaving in an hour to deliver to the retailer. And if we can't meet the retailers demand, then the retailer will find another supplier who can.



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