

SUSTAINABLE PRODUCTIVITY NEWS

“for improving operating margin with *Continuous Process Improvement tools*”

Volume 8 Issue 4

Q4 2017

Lean Thinking on The Farm

Our mission at Sustainable Productivity Solutions is to Optimize Food Chain Efficiency. Simply put, we aim to optimize the processes that produce, process, ship, and deliver our food. The agriculture industry in California is evolving and we see incredible growth potential for small- to medium-sized farms who are willing to adopt a new way of thinking... Lean Thinking.

Lean Thinking is not really a new way of thinking. It is widely used in manufacturing and industrial, factory settings. Any farmer could quickly generate a long list of reasons why you cannot treat a farm like a factory. So, why is Lean Thinking relevant? Because, Lean Thinking is about identifying and eliminating waste and I would argue that this concept is 100% applicable to farming.

Consider the numerous activities that happen on a farm: ordering, storing, and planting seeds; ground preparation; weeding; scouting; harvesting; washing, sorting, and packing products; taking and fulfilling customer's orders; etc. All of these activities have the potential to be burdened by waste. The obvious connection here is waste in terms of over-production. Most of California-grown products are fresh fruits and vegetables with limited shelf-life. What doesn't sell ends up as compost or garbage. Lean Thinking expands the concept of waste to include: Delay, Transportation, Over-processing, Inventory, Motion, and Defects.

If planted seeds don't sprout, this is a defect waste. If produce is sorted in the field and again in the cooler, this is over-processing

waste. If farm maintenance crews are walking back and forth between the greenhouse and maintenance shop to retrieve necessary tools, this

is motion waste. If packaging sheds store extra totes, poly-bags, clamshells, etc., this is inventory waste. If old, broken farm equipment is kept onsite but never used, this too is considered waste.

All of these wastes add up and take a toll on farm productivity. At a time when rising labor costs and labor shortages are at the forefront of everyone's mind, no farm big or small can afford to accept this kind of productivity loss.

Lean Thinking is applicable on the farm and can help you root out waste and improve productivity. Contact us if you're interested to learn more.



Katy Griffin

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Unlocking Operational Efficiency

In 2025, the world's population is expected to reach 8 billion people. How can our agriculture systems and ag-related industries scale up to satisfy demand at that level?

By **increasing operational efficiency** and doing more with less resources.

By **reducing waste** in our processes (wasted time, wasted money, wasted input materials, wasted motion, wasted transportation).

By **embracing technology** such as automation, sensors, big data, simulation, and optimization.

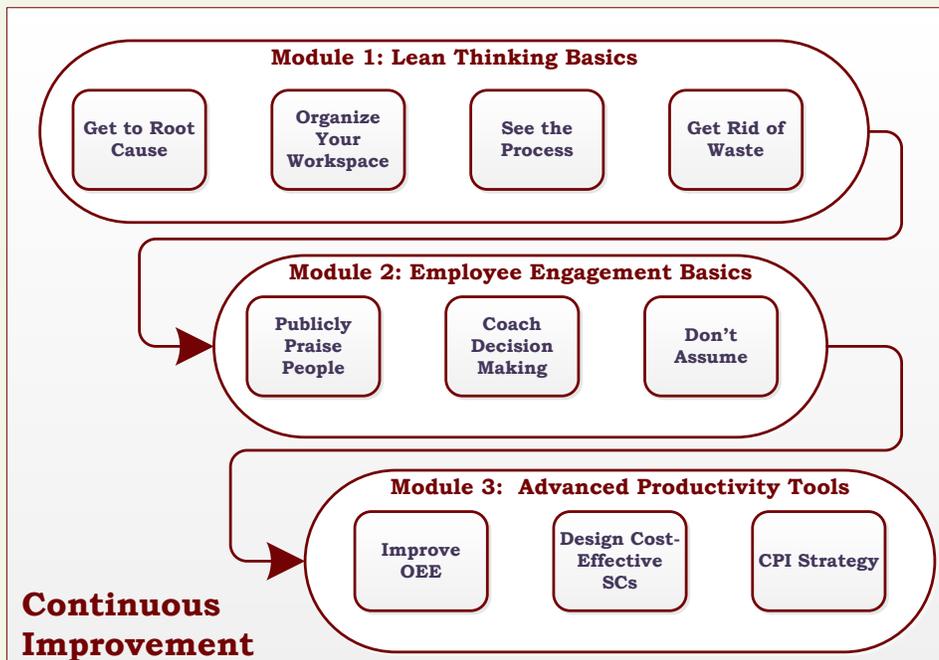
By **engaging employees** because there is no downside to being a great leader. Plus you'll need them to work smarter alongside the technology that will inevitably be introduced.

The field of Operational Engineering (a.k.a. Industrial Engineering) has been around since the early 1900s and has evolved throughout the last hundred years. Today, the core com-

petencies of our profession mirror the four components listed above: increase operational efficiency, reduce waste, embrace technology, and engage employees.

SPS' Unlocking Operational Efficiency program teaches you to use the modern techniques of Operational Engineering, known as LEAN and Continuous Process Improvement (CPI), to unlock operational efficiency within your organization. Our goal is to provide you with hands-on learning so that you are confident using LEAN and CPI principles in your work and are excited to implement and share these concepts with others.

The Unlocking Operational Efficiency (UOE) training program consists of three sets of Modules, and is available as an in-house training option where you work. In addition, Modules 1 & 2 will be offered in both Santa Cruz County & Arroyo Grande in March 2018.



EVENTS CALENDAR

World Ag Expo
February 13-15, 2018
Tulare, CA

Santa Cruz County AgTech Meetup - Land Prep
February 28, 2018
Watsonville, CA

Santa Cruz County Farm Bureau National Agriculture Day Spring Luncheon
March 14, 2018
Watsonville, CA

Central Coast Greenhouse Growers Association Open House
April 21, 2018
Arroyo Grande, CA

Santa Cruz County AgTech Meetup - Planting
April 25, 2018
Watsonville, CA

Santa Cruz County Farm Bureau 11th Annual Down to Earth Women Luncheon
May 10, 2018
Watsonville, CA

EVENTS CALENDAR

**Institute of Industrial
and Systems
Engineering Annual
Conference**
May 19-22, 2018
Orlando, FL

**Santa Cruz County
AgTech Meetup -
Production**
June 20, 2018
Watsonville, CA

**Grower-Shipper
Association 80th
Annual Gala**
June 23, 2018
Salinas, CA

**Santa Cruz County
Farm Bureaus 101st
Annual Meeting**
June 28, 2018
Watsonville, CA

**Santa Cruz County
Farm Bureau 10th
Annual Testicle Festival**
August 25, 2018
Watsonville, CA

**Santa Cruz County
AgTech Meetup -
Harvesting**
August 29, 2018
Watsonville, CA

Optimize Your Process Before You Mechanize

I once had a boss who detested people who came in and asked for more money BEFORE they worked on getting the most out of their existing resources and processes. His argument was “why should I give them more money, if they haven’t figured out how to get the most out of the money I already gave them?”

He was tired of managers who attempted to solve operational problems by spending money to buy more resources instead of taking the time to figure out how to fix their operational failure points.

The first instinct for many leaders is that if we buy new equipment, hire more people, or build a new facility, we will solve our problems. This behavior is often triggered by fast growing companies that believe they don’t have time to think through their problems or to figure out which improvement solutions to implement. What is even worse is that this thinking continues after the growth phase slows down where we can least afford to waste money.

Buying more equipment, and hiring more people is an easier decision to make and to act on especially if you are in growth mode. The thinking is “even if we buy too much, we will use it eventually as we continue to grow.” When we consider the time value of money, we should realize that until we actually need the extra capacity, we are being wasteful

with our money.

People further support this thinking by believing they are already doing the best they can with what they have. In addition, quite often, they don’t have the discipline or knowledge to follow a structured problem solving approach to learn how to get more out of their operations.

But by buying our way out of trouble, we are being wasteful. One reason this is wasteful is that the cause of the trouble has not yet been fixed. All we are doing is burying the problem so that we don’t have to deal with it today.

The other reason why buying our way out of trouble is wasteful is that we have now bought more of the same problem we already have. That is our current processes don’t work well, and now we have more process capacity that doesn’t work well, creating bigger future headaches for us. (continued on next page)



Optimize Your Process Before You Mechanize (continued from previous page)

So what should we do? Explore the advice my boss had. Work to improve your existing processes (through tools such as 5S, visual management, predictive maintenance, line balancing, set-up reduction, etc.), until you're sure that you're maximizing productivity.

To do this, we need to understand the problem well enough to understand the root-cause of the problem, then follow a structured problem solving approach and work towards generating a sustainable solution. This way we will come up with solutions that PERMANENTLY solve the problem.

By using a root-cause-based problem solving approach, we will be able to solve the problem once and for all. And most of the time, improving the process is significantly less expensive than buying more resources, hiring more people, or building a new facility.

Khaled Mabrouk

Contact Us

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