

Innovations at Lancaster Farms — AKA 30 Years of Trial and Error

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INTRODUCTION

When asked to present a paper on innovations at Lancaster Farms, I said to myself “no sweat”. All I would have to do is take a few pictures, show several slides at the meeting, and write a short paper. However, when we really think about the subject — it is much more than a gadget!

For a multitude of reasons we seek out innovative approaches to our problems. The old saying that “need is the mother of invention” is indeed true, and is the principle reason for innovation in most nurseries.

The entire concept of innovation is more than just simply a “gizmo,” but is a mindset, a philosophy if you will.

This concept revolves around the opposite or converse of innovation, which is stagnation. I don’t remember where I came upon the following list, so I can’t give the originator the proper credit, but it has served as a valuable tool and guide for over 25 years when we think “innovation.”

EIGHT WAYS TO STAGNATION

- We tried it one time a number of years ago.
- Never “done it” that way before.
- We are just not ready for that.
- We are doing O.K. without it up to now.
- We don’t have the time to try it now.
- It will cost too much.
- That’s not our responsibility.
- I know it just won’t work.

I am not suggesting that every idea we have will come to fruition, but what I am trying to relate is that we have to be open to new and exciting concepts about how we accomplish tasks on the nursery. Some ideas just don’t work, and other concepts are obviously beyond our individual financial means. But we are all guilty at times of making daily decisions that fall into the category of “ways to stagnation”.

Actually, I really don’t like the word “decision”. I like to think that when we come upon a problem or challenging situation that we develop a solution, rather than make a simple decision. Real solutions go far deeper than a simple decision. They are lasting and serve as true building blocks that can be used over and over again. When a solution is found, the decision process is almost automatic.

I have never been to a Casino and don’t plan to visit one — so I am not talking about gambling. A systematic and well organized analysis of a problem eliminates a great deal of the “gamble” and leads to a more realistic solution.

An old saying goes something like this “you better not be the first one with an idea, but if you are the last then it will be too late”. I am sure this adage is true. However, I have never put much stock in it. What I have discovered over and over again is that

when we seem to be stepping into uncharted waters, we later discover that other nurseries were taking similar steps.

We travel. We ask questions. We learn from other nursery friends, and we always try to seek and share. Each of these efforts makes us realize that no one operates in a vacuum, and the stimulation to be innovative is **contagious**.

INNOVATIONS THAT HAVE WORKED FOR US

These following examples illustrate some of the problems that we have faced and the solutions we have helped develop over the past 30 years. Although all are in common practice now, I can assure you that when we were busy developing these solutions, they were quite different and innovative compared to practices being utilized.

Problem: How to grow Japanese holly or an azalea in #3 containers without having to shift up from #1 containers.

Solution: Transplant plants in 7.6-cm (3-inch) liner pots directly into a #3 container. This sounds really simple now, but 27 years ago it was crazy to think that you could go directly to a large container without going through the #1 can step-up method.

Problem: Finding time to pot cuttings rooted in trays.

Solution: Direct sticking of cuttings. Simple task now but a major project in 1971-72 (Meadows, 1981). This eventually evolved into direct rooting of dormant cuttings, which is our current practice on many items (Parkerson, 1983).

Problem: Sore legs and feet standing at a trade show booth all day long.

Solution: Tip from a friend. Purchase a pair of Echo shoes.

Problem: Irrigation layout, design, and operation.

Solution: Prior to PVC and poly pipe we were almost forced to limit our nozzle spacing to increments 6.4 m (21 ft), which was the standard length of galvanized pipe. Today, it is so easy to cut and glue pipe, that it is hard to visualize what it was like in the 1960s. Hand valves have given way to solenoid valves controlled by precision time clocks.

Problem: Winter protection of plants grown in open beds.

Solution: Developed a system for laying white 4-mil plastic directly on top of the plants. The plastic is held in place using shade cloth, nails, earth anchors, and rope. We also designed a device to re-roll the plastic and shade cloth in the spring (Parkerson, 1985).

Problem: Not enough water to support nursery expansion.

Solution: My partner Bill Daughtry developed the concept of “pulse-cyclic irrigation” utilized in the greenhouse industry into a practical system for nursery production (Daughtry, 1990).

Problem: Waterborne pathogens in re-cycled retention basin irrigation water.

Solution: Chlorine gas is routinely added to our irrigation water and helps control motile spores of *Pythium* and *Phytophthora* (Daughtry 1983, 1989).

Problem: Production of “field-grown quality plants” in containers.

Solution: Pot-in-pot production (Parkerson, 1990). We continue to refine containers, watering practices, root manipulation, etc.

Problem: What to do with excess or damaged plant inventory.

Solution: Grind discarded plants using a tub grinder. The ground-up material is reused in potting mixes and sold as soil amendment for landscape beds.

Problem: Record keeping.

Solution: Computers. We started in 1979 with one of the first Radio Shack computers sold on the East Coast. The computer terminal is now our time clock, fuel control, truck scheduler, checkbook, typewriter, etc. Features, such as the spell check of a word processor, help make us more productive and efficient.

NOT ALL IDEAS TURN INTO INNOVATIONS

I have not mentioned the big pile of 13 innovations that were a complete waste of our time, money, and effort. If we are going to be innovative in our business approach then we must recognize and accept disappointments — but never accept defeat! Mr. J.C. Penney once said “if you are correct 51% of the time than you will be a success.” I strive for more than 51%, but the concept is sound. If you want innovation then you must not be afraid of some setbacks — this is all part of trying to be innovative.

WHAT'S AHEAD? WHERE WILL THE INNOVATION TRAIN LEAD US IN THE FUTURE?

One day we will have robot-like gadgets running around moving, spacing, grading, loading, labeling, spraying, collecting cuttings, and many other tasks. Global positioning systems (GPS) will aid in plant location, pesticide application, deliveries, etc. Powerful computers with artificial intelligence, and trading on the World Wide Web will be reality.

What an exciting time! I so look forward to what lies ahead.

LITERATURE CITED

- Daughtry, C.W.** 1983. Chlorination of irrigation water. *Comb Proc. Intl. Plant Prop. Soc.* 33:596-599.
- Daughtry, C.W.** 1989. Control of phytophthora and pythium by chlorination of irrigation water. *Comb Proc. Intl. Plant Prop. Soc.* 38:420-422.
- Daughtry, C.W.** 1990. Conservation of water and fertilizer using pulse irrigation. *Comb Proc. Intl. Plant Prop. Soc.* 40:390-393.
- Meadows, S.B.** 1981. Developments in direct rooting. *Comb Proc. Intl. Plant Prop. Soc.* 31:655-658.
- Parkerson, C.H.** 1983. Direct rooting of dormant cuttings. *Comb Proc. Intl. Plant Prop. Soc.* 33:274-276.
- Parkerson, C.H.** 1985. Keeping plants warm with covers. *Comb Proc. Intl. Plant Prop. Soc.* 35:246-248.
- Parkerson, C.H.** 1990. P&P: A new field-type nursery operation. *Comb Proc. Intl. Plant Prop. Soc.* 40:417-419.