

## **Lean Market Growing Masterclass Lesson Plan**

### **Lean Farm Foundations**

Welcome to Lean Farm Foundations

An Intro to Lean Farming and Clay Bottom Farm

Key Practice #1: Organize with 5S

Key Practice #2: Precisely Identify Value

Key Practice #3: Eliminate 10 Wastes Part A

Key Practice #3: Eliminate 10 Wastes Part B

Key Practice #4: Practice Kaizen (continuous improvement)

Bonus Lesson: An Interview with Ben Hartman by Diego Footer

Bonus Lesson: The Task Management Board, with Diego Footer

Downloads – PDF Supplements: Kanban Maps, Heijunka Calendar, Veg per Square Foot, Value Sheet

### **Intro to Lean Market Growing**

Welcome to Lean Market Growing

Finding New Land

Finding Customers

Setting Prices

Planning the Farm Year

Accounting and Record Keeping

Workers on the Farm

Finding New Land Case Study with Amanda and Adam Dilley

Bonus Lesson: Talking Employees, with Diego Footer

Applying Lean Math to Compact Farming with Diego Footer

### **Cutting Edge Tools**

Welcome to Cutting Edge Tools

Hand Tools

Knives and Pruners

Paper Pot Transplanter

BCS

Jang Seeder

Tractor

Quick Hitch

New Tool – Hoss Sweeps

New Tool – Greens Harvester

Bed Shaper

Chisel Plow

Gator

Plot

Skid Loader



Sprayer

Bonus Tools – Kondo It!

### **Greenhouses, Processing Rooms and Other Infrastructure**

Welcome to Greenhouses, Processing Rooms and Other Infrastructure

Barn House Outside Tour with Diego Footer

Propagation House

Prop House – Ventilation Controls and Layout

Germination Chamber

Setting up the Processing Area

Hosing Station

Wash and Pack Area

Packing Station

Processing Room under Construction

Cooler Rooms

Irrigation Systems

Driveways and Access Lanes

Greenhouse Design Part 1

Greenhouse Design Part 2

Greenhouse Design Part 3

Bonus: Greenhouse Video with Diego Footer

Bonus: Spring 2019 Greenhouse Tour

Bonus: Tour of Finished Processing Room

Bonus: Shade House

### **Farm Layout, Bed Preparation, and Cover Cropping**

Welcome to Farm Layout, Bed Preparation, and Cover Cropping

Preparing New Ground

Preparing New Ground Summary Points

Laying out Plots and Beds

Field Discussion – How to Prepare Beds

5 Step Flipping Bed Hierarchy

Field Discussion - 5 Step Flipping Bed Hierarchy

Bed Flipping Demos

Field Discussion – No-till Ideal

Laying out Greenhouses

Lean Cover Cropping

Bonus: How We Laid out the Farm

Bonus: Why and How We Moved

Bonus: Spring 2019 Field Tour

### **Lean Compost Making**

Welcome to Lean Compost Making



Intro to Soil Health and Composting  
Compost Making Leaned Up  
Two Types of Compost  
Starting a Compost Heap  
Mulching with Compost  
Turning Compost Field Demo

### **Seeding**

Welcome to Seeding  
Direct Seeding Tips  
Seeding Plastic Plug Flats  
Germination Chamber  
Tips for Germination and Seedling Care  
Hand Transplanting Tips

### **Paper Pot Magic**

Welcome to Paper Pot Magic  
Paper Pot Transplanter Intro  
Our Paper Pot Seeding Set Up  
Paper Pot Transplanting Demo  
Bonus: Seeding Paper Pot Chain Demo  
Bonus: Paper Pot Lesson with John Hendrickson  
Cheat Sheet and Summary Slides

### **No-Weed Farming**

Welcome to No-Weed Farming  
Weed Management Strategies  
Hand Weeding in the Field  
The Tine Weeder in the Greenhouse  
The Tine Weeder in the Field  
Bonus: Recap of Weed Strategies

### **Tomato Masterclass**

Welcome to Tomato Masterclass  
Tomato Variety Selection  
Tomato Seeding  
Tomato Potting Up  
Tomato Transplanting  
Tomato Pollination  
Bonus: Ben Opens a Bee Hive  
Tomato Setup for Indeterminates  
Bonus: Indeterminate Trellising with Diego Footer  
Tomato Indeterminate Trellising



Tomato Determinate Trellising  
Bonus: High Staking Method  
Tomato Sucker Pruning  
Tomato Fertility  
Tomato Diseases and Insects  
Tomato Harvesting

### **Five Best-Selling Crops**

Welcome to Five Best-Selling Crops  
Salad Greens  
Carrots  
Turnips  
Head Lettuce and Romaine  
Kale

### **Other High Profit Crops**

Welcome to Other High Profit Crops  
Beets  
Pea Shoots and Microgreens  
Green Onions  
Basil  
Peppers  
Beans  
Bulb Fennel  
Cucumbers  
Garlic  
Ginger  
Zucchini

### **New and Live Content**

Fall 2021 Lean Training Series Session 1 – Jumpstart Your Lean Market Farm  
Fall 2021 Lean Training Series Session 2 – Setting up Lean Farm Infrastructure  
Fall 2021 Lean Training Series Session 3 – Cutting Edge Growing Techniques for Tomatoes,  
Lettuce, Herbs, and More  
Greenhouse Construction Part 1 – Layout and Overview  
Greenhouse Construction Part 2 – Measurements and Setting Posts  
Greenhouse Construction Part 3 – Building Arches  
Greenhouse Construction Part 4 – Greenhouse Framing  
Greenhouse Construction Part 5 – Finishing  
Packaging for Wholesale Accounts  
A T Trellis for Cherry Tomatoes  
Do I Need to Shade My Greenhouse?  
Summer 2021 Field Tour



Summer 2021 Tomato Greenhouse Tour  
Plant Fertility – Side Dressing  
An Updated Germination Chamber  
Live Q&A with Ben, April 2021 – USAID and Lean Tips for Seeding and Germination  
Live Q&A with Ben, January 2021 – New Developments and Farm Financials  
Clay Bottom Farm Financials  
Ben’s Charts  
Cutting-edge Tools for Market Growers  
Making and Using Compost  
How We Run Our No-contact, No-waste Home Delivery CSA Program  
New Strategies for Lean No-till Bed Preparation