

Recordkeeping & SOPs for Small Farm Management

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Education Goals

- ★ Understand the purpose of record keeping for your farm operation, and begin to identify 1-3 specific records that would benefit your operation.
- ★ Develop practical and realistic expectations for how to incorporate the new records that you choose to keep for your farm.
- ★ Describe what a Standard Operating Procedure (SOP) is, why it has benefits to your farm operation, and identify and develop a SOP for 1-2 crops or market channels on your farm.

Be ready to get to work!

Recordkeeping

- ★ What is Recordkeeping and why is it valuable for us on the farm?
 - Analog vs. Digital Records
 - Examples of records for different parts of the farm operation
- ★ What records are you already keeping? Are there records that you *want* to keep but struggle to?
 - Practice Record-keeping, not “Record-remembering!”
 - If you have a Food Safety Plan, you are already doing recordkeeping!
- ★ Integrate records into future decisions

Example Records for Harvesting

- ★ Total crop harvested from x number of row feet
 - Make sure to adjust for actual plant density vs. planned density
- ★ Total yield per crop variety (i.e. Black Cherry vs. Sungold tomatoes)
- ★ Storage temperature of produce (required by Food Safety Plan)

Example Records for Harvesting

- ★ Harvest records inform crop planning:
 - Total crop harvested from x number of row feet: helps you plan to plant more or less the following season
 - Total yield per crop variety (i.e. Black Cherry vs. Sungold tomatoes): helps you compare varieties to choose your best performers

Example Records for Markets/Distribution

- ★ Records for markets:
 - lbs distributed
 - \$ made
 - # customers
 - # & hrs of hired help
 - What ran out and when
 - What was left over

Example Records for Staffing

★ Records for staffing:

- Timekeeping
- Tasks performed/trained on
- mid-season/end-of-season reviews
- How can you use record keeping to identify worker productivity?

Sprout City Farms Sample Harvest Log

| 9/25/2019 | | | | | | | | |
|-----------------|-------|----------|-----------------|-----------------------|---------------|---------------|-----------|----------------|
| Crop | Bed # | Row feet | Total Harvested | CSA Share (x55) | DGS Cafeteria | Farm Stand | Leftover | Donated to JFS |
| Summer squash | | | 35 | | 10 | 25 | | |
| Cucumbers | | | 55 | x2 | | | 10 | 10 |
| Eggplant | | | 61 | x2 | | | 8 | 8 |
| Peppers | | | 30 | x2 or 1 bag shishitos | 5 | 5.5 | 2 | 2 |
| Green beans | | | 42 | 0.5 # | 10 | 5 | 1 | 1 |
| Tomatoes | | | 80 | 1 # | 10 | 15 | 6 | 6 |
| Cherry tomatoes | | | 34.5 | 0.5 # | | 7 | | |
| Kale/Collards | | | 30 | 1# bunch or chard | | | 2 | 2 |
| Rutabegas | 22 | 180 | 88 | x5 small or x1 large | | | 15 | 15 |
| Chard | | | 20 | 1# bunch or kale | | 3 | | |
| Onions | | | 8 | | 1 | 7 | 2 | 2 |
| Leeks | | | 37.5 | x1 | | | 4 | 4 |
| Potatoes | 36 | 40 | 55 | 1 # | | | | |
| Carrots | 49 | | 22 | | 10 | 11 | 1 | 1 |
| TOTAL | | | 598 | 10 | 46 | 78.5 | 51 | 51 |
| | | | | | | | | |
| YTD | | | 5768.00 | 109.50 | 210.50 | 335.00 | | 97.50 |

Questions or Comments
about Record Keeping?

Standard Farm Operating Procedures (SOPs)

- ★ Step-by-step instructions for routine operations on the farm
- ★ Goal of developing efficiency and uniformity of tasks
- ★ Free you from micromanaging: use as an onboarding/training tool for everyone working on the farm

Sprout City Farms Sample SOP: Bed Prep

Timeline & Procedures for Field Activities

March

Remove winter mulch and prep beds for planting

- Remove straw from beds (with rakes or hands) & place in compost bin marked “straw”
- Add compost to each bed: 3-4 wheelbarrows of A1 compost; if nitrogen boost needed: 5 lbs of alfalfa pellets raked out over the bed
- Use broadfork to aerate soil all the way down the length of each bed (See Broadfork SOP)
- Rake smooth (chop up chunks of soil with rake, create flat surface)

Install drip tape

- Consult field plan to see how many lines of drip are needed for a given bed.
- Drip tape may be reused from the previous year (stored rolled up in boxes in the barn); once that supply is exhausted, unroll it from a new roll down the length of the bed and cut it a foot longer than the bed length (you need extra at the end to fold and cap it off). When using a new roll it is easiest to put a shovel handle (purple child-size hoe works best) through the center of the cardboard roll and balance it on top of a wheelbarrow so it can spin freely.
- Connect a roll of drip tape to the red valve at the top of the bed by screwing the neck of the valve down over the drip tape. Reduce leakage by adding thread tape to the valve threads before doing this.
- With the perforated side up, roll out the drip tape down the length of the bed.
- Cap it at the end by folding over itself and securing with a small piece of drip tape; each line needs 2 caps at the end. Also stake the end into the ground using a piece of twine tying the drip tape to the stake.
- Use metal stakes (painted yellow on top) to secure the drip tape to the ground along the bed (about 3-4 per line).

Roxbury Farm Sample Crop SOP

Arugula

Erica sativa (Brassicaceae or cabbage family)

Soil Preparation

- ♦ Arugula should not be followed after other cole crops.
- ♦ Early arugula does well on land without cover crop and little plant debris (carrots, late lettuce)
- ♦ Late Arugula does well after a winter cover crop of rye and hairy vetch or can follow a spring planted lettuce crop.
- ♦ 10 ton of compost creates a surplus of P and is more than sufficient in nutrients for N and K.
- ♦ Compost is incorporated and Arugula is planted on raised beds.

Common Recommended fertilizer rates in New York (CCES 1994)

| Nitrogen | Phosphorus | Potassium | pH |
|----------|------------|-----------|---------|
| 60 | 0-125 | 0-200 | 5.5-6.8 |

Varieties

- ♦ Astro (for bunching), Sylvetta (for machine harvest)

Direct Seeding Information

| | Rows | Seeds per foot | Seed plate # | Depth | Notes |
|------------|------|----------------|--------------|---------|-------------------|
| Planet Jr. | 5 | 50 | 3 or 4 | Depth 2 | Use spreader shoe |
| Sutton Jr. | 9 | 20-30 | 6 | ¼ inch | 1 mph (or 1.6 km) |

Number of successions

- ♦ 15 (no summer plantings)

Cultivation Procedures

- ♦ Sutton Jr. or Planet Jr. Planters in combination with fine seeded crops like Arugula do not perform well with plant debris on soil surface. Arugula does well after a winter cover crop of oats and peas (September seeding) or when no cover crop was planted the previous fall.
- ♦ Prepare seedbed one to two weeks in advance, shallowly stale seedbed before planting to eradicate weeds if possible. Do not disturb soil too deep as new weed seeds will be brought up.
- ♦ For 5 row culture; basketweed 7-10 days after emergence, or as soon as possible without burying the young plants.
- ♦ Hand weeding should not be necessary as Arugula crowds out weeds very well as long as flea beetles are controlled.

Disease and Insect Protection

- ♦ Cover with floating row covers before emergence to avoid flea beetle damage (for earliest plantings). Keep covered until harvest.
- ♦ Fall planted arugula hardly ever needs protection as seeding time occurs at the tail end of the second generation of flea beetles. Any planting after Sept 1 is free from hole damage.
- ♦ Beneficial nematodes can be sprayed on heavily infected land to avoid future generations. Flea beetles overwinter in hedgerows and grass strips.

Other Cultural Practices

- ♦ Arugula is a short season crop that allows for a wide variety of cover crops to follow if planted for spring or late summer harvest. Early arugula can be followed with another cash crop like lettuce or spinach and has some bio-fumigant effect to reduce soil borne disease.

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**THANK YOU FOR
PARTICIPATING WITH
US TODAY!**

Let's get to work

- What are 2-3 areas of your farm that you can start keeping and implementing records?
- What are 1-2 tasks on your farm that you can develop SOPs for this year?

Examples of info for Crop SOP

★ Number of successions

★ Cultivation procedures:

- Steps to prep a bed for planting, tools & amendments used
- Irrigation setup & maintenance
- Weeding schedule & practices
- Trellising: materials/tools used, spacing for posts, net vs. twine, etc
- Pruning: schedule & practices

★ Disease and Insect Protection:

★ Treatments used for specific pests/disease:

Examples of info for Crop SOP

★ Compost pile management:

- schedule of adding materials, turning, recording temperature
- what goes in
- when to apply to field

★ Sheds, wash station, coolbot, break areas:

- protocol for keeping clean & orderly
- photos on wall for what goes where
- schedule for cleaning

Examples of info for Crop SOP

Crop Name:

Soil Preparation:

Common Recommended fertilizer rates:

| Nitrogen | Phosphorus | Potassium | Calcium | Compost | |
|----------|------------|-----------|---------|---------|--|
| | | | | | |

Varieties:

Greenhouse Guidelines

| Tray | Germ @ | Grow @ | Hardening Off | Notes |
|------|--------|--------|---------------|-------|
| | | | | |

Examples of info for Crop SOP

Number of successions:

Transplant readiness indicators:

Transplanter:

| Rows | In-Row | Planting Depth | Notes |
|------|--------|----------------|-------|
| | | | |

Direct Seeding Guidelines:

| | Rows | Seeds/ Ft | Plate/ Roller | Sprocket | Depth | Notes |
|----------|------|--------------|------------------|----------|-------|-------|
| Earthway | | | | | | |
| Jang | | | | | | |