



HACCP FEASIBILITY – 2009

CASE STUDIES FOR SALAD GREENS PACKING On-farm vs. Off-farm

If a farm decides to pursue HACCP for salad greens, are there advantages to packing on-farm or at a commercial kitchen?

CISA prepared an analysis of two scenarios for packing salad greens according to HACCP principles – on-farm and off-farm. Each individual farm enterprise needs to consider the benefits and challenges of each scenario in light of their farm characteristics, including location, resources, management style, and marketing.

ON-FARM PACKING

Scenario: Farm owner and crew plant, cultivate, and harvest greens. Crew transports in harvest containers to packing building on farm property. Owner/manager trains crew on proper practices. Owner/manager develops and documents all standard procedures and food safety plans, monitors packing, and completes logs.

Comparing *on-farm packing* to *off-site packing at a food processing center*, you might consider the following pros and cons.

PROS

- **Proximity** Requires limited transportation.
- **Shelf-life** Packing on-farm does not compromise the quality of salad mix with additional handling and transportation.
- **On-farm presence** of farm manager allows for efficiencies and multitasking.
- **Resourceful** Can make use of existing buildings.
- **Asset-building** Investment in on-farm improvements builds equity.

CONS

- **Costs** for on-farm upgrades.
- **Labor** involved in creating documentation from scratch and monitoring protocols.
- **Lost space** due to need to segregate greens packing operation.
- More **perceived hazards** to control due to proximity to diverse farm activities (livestock, equipment maintenance, etc.).
- **Limited cost-sharing** opportunities with other farms.

OFF-FARM PACKING

Scenario: Harvested product is cooled and transported to a commercial kitchen, such as the Western Massachusetts Food Processing Center in Greenfield, MA. The farm rents time at the facility for employees to unload, rinse, dry, and pack greens according to protocols established by kitchen supervisors and farm management. General operating procedures are monitored and documented by the FPC to meet local, state, and federal requirements¹ (but not HACCP). Farm establishes additional standards and trains packing staff or uses FPC co-packing services. Product is cooled and stored at the FPC (or transported back to farm coolers), and then delivered to wholesale outlets.

Comparing *off-site packing at a food processing center* to *on-farm packing*, you might consider the following:

PROS

- **Protocols & Documentation** No need to recreate the wheel for facility procedures, SOPs and GMPs. Technical support provided by FPC staff for post-harvest handling. However, this does not take care of all the planning and documentation needs - GAPs, standards for transferring product to the FPC, and HACCP, are still the responsibility of the salad greens business.
- **Predictable costs** Hourly fees are charged by the FPC, and farm owners would not be responsible for contingencies or emergency costs in the packinghouse.
- **Less investment** required for on-farm capital improvements related to packing procedures.
- **Reduced liability** with the FPC. Insurance rates are favorable when using an FDA-licensed food processing center.
- **Professional Staff** for co-packing operations and everyday oversight.

CONS

- **Duplication** of rinse and spinning if product needs on-farm hydrocooling for product quality
- **Costs** for hourly rental and transportation that maintains cold chain².
- **More time** and coordination needed to transport raw product to FPC.
- **Scheduling challenges** during busy season at FPC.
- **Limited control** for farm owner in commercial kitchen conditions (e.g. limitations on facility upgrades, specialized equipment, etc.).
- **More variables** to control in a multi-product, multi-tenant kitchen (e.g. use of allergens).

FEASIBILITY

Next step for farmers: Take a look at your resources and compare it with this list of potential costs and benefits. Does one of these scenarios fit? Do you have other options to consider?

A farm might consider working with the FPC to be a preferable option if:

¹ This may not be true for all commercial kitchens. Because the FPC is a small business incubator, committed to supporting the development of food businesses as part of their mission, they provide guidance and technical assistance to facility participants. HACCP planning is not currently a service offered by the FPC but could be negotiated with additional interest from co-pack customers.

² Refrigerated transportation may not be required if Standard Operating Procedures (SOPs) limit time for transportation.

1. packing operations are not duplicative (e.g. winter harvest that don't require hydrocooling may be ideal, whereas most summer harvest requires that salad greens be rinsed on-farm to keep quality, and then dried for transport to the FPC, before being rinsed and spun again at the packing facility according to GMPs)
2. the cost of on-farm improvements is higher than rental fees over a 5-10 year period (depending on depreciation)
3. organizing logistics to pack at (and distribute from) the FPC requires less management capacity and labor than projected on-farm upgrades
4. farm and markets are located near FPC and refrigerated trucking is available
5. space is available at the FPC where specialized equipment could be installed

SCENARIO - MULTIPLE PRODUCERS

In addition to the on-farm and off-farm packing scenarios, we also explored the idea of a multiple producer scenario to make efficient use of investments, labor, and expertise. Could a grower rent space at someone else's farm that has a good packing set-up, like in the case of a commercial kitchen? Could a grower pack for another farm? Or would growers choose to form a cooperative to collaboratively pack and co-brand their product?

The concept of small-scale aggregated packing operations is appealing if the geography and business culture matches up for several salad green enterprises. However, we need to take note that different rules may come into play once a grower starts to pack product that they have not grown. Co-packing or aggregating may change the agricultural status of these activities. Collaborative packing would necessitate additional research related to liability, licensing, packing fees, audit requirements, and traceability. Certain ownership models like cooperatives might be able to remedy some of these challenges.

To date no growers have been strong proponents for this approach – so we're going to leave some of these questions open-ended.

CONSIDERATIONS

- **Definition of packing** (fee-for-service or co-packing) – How does this change the definition of the business and agricultural activities on any given farm?
- **Aggregation** – Will you aggregate product for combined delivery and sales? Will you maintain separate brands but collaborate on marketing and distribution?
- **Business fit** – How is the relationship with collaborating business owners? Does your ethic and business style match enough to work together?
- **Cost-sharing** – How can this approach improve your financials, and help increase Return On Investment (ROI) for on-farm upgrades?
- **Packing fees** – How will you determine packing costs, fees, or cost-sharing for facility upgrades with other farms?
- **Local and state regulations**
 - What licensing would be required by local Boards of Health when off-farm products are brought in for packing?
 - Would any agricultural designations be voided if other product is being packed on your premises?
- **3rd party audits** - Auditors for food safety and other certification programs may find that product from other farms pose additional risks, and they may require the same standards (such as 3rd party audited GAPs) for incoming product as the host farm.

- **Traceability** - Additional traceability measures may be required to ensure precise tracking of product and validated prerequisite programs.
- **Liability** – What additional legal risk is incurred and how does this impact insurance costs?

CONCLUSION

There is no one-size-fits all recommendation for on-farm or off-farm packing. It is important for salad greens growers to look at their available resources (financial, physical, human) and determine how they best match up with the requirements of food safety programs like HACCP and local and state regulations for packing farm products.

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