**A close - up of a logo

Description automatically generated with low confidenceShape, circle

Description automatically generatedLogo, company name

Description automatically generated**

**Food Loss Metric Frequently Asked Questions**

*This metric calculator tool is used to sample and quantify food loss, surplus, or unmarketable fresh produce in farm operations*

1. **How can growers use the food loss metric calculator to connect with buyers?**

Several metrics developed by the Stewardship Index for Specialty Crops (SISC) are already integrated into Supply Shift so that **buyers can easily access data from their suppliers**. The intent is that this food loss metric would also be included if there is sufficient interest among buyers. In the meantime, growers can use the Excel workbook to make their assessments. When this metric is added to Supply Shift, data used in the Excel could easily be uploaded.

1. **How long will the measurement take?**

We estimate that filling in all the tabs for all the potential operations on-farm (including processing, packaging, storage and transportation, plus the in-field portion) will take 3 - 4 hours and require 1 - 2 staff. **Sampling and data collection in the field only will take about one hour for two people.** This metric calculator uses *a sample* of the crop in the field to estimate the opportunity available per acre, and on the farm as a whole.

1. **What equipment is needed to sample in-field?**

In order to take samples in the field and weigh them (as opposed to estimating based on what’s seen), staff will need: **a long measuring tape, a scale, harvest containers, and flagging.** Printing out the field worksheet from the metric calculator (“Field worksheet” tab) is a handy addition.

1. **When should the measurement be done in-field?**

**After the final harvest**, ideally after the same harvest interval that has been used throughout the season. For example, if broccoli were harvested every four days, then four days after the final harvest would be ideal. What the metric calculator will describe in the results of the “opportunity cost” tab is whether or not it is feasible to continue harvesting the crop, one more time, given market conditions and inputs, in an effort to reach for total utilization of the crop and a reduction of losses in the field.

1. **Can the food loss metric calculator be used to sample more than one field?**

There are three grids that record data for each field sampled, in the field worksheet tab. We have introduced these as a way to sample the same field over three years. However, they can alternatively be used for **three harvesting periods, three different crops, or three fields** of the same crop. Any way that works well for the user of the calculator is fine. You can change the subheadings of the grids in the field worksheet, as well as cells 10C, 22C, and 32C on the general tab to accomodate for how you’d like to do the measurements.

1. **Can the food loss metric calculator be used for all crops?**

The metric calculator was designed for measurement in vegetable crops. It can be adapted to measure losses in **all specialty crops**, but is not appropriate for grain and nut crops. Tree fruit can absolutely be measured using the metric calculator by employing the sample size of 1% of the orchard area, rather than the 0.1% of field area used with vegetable crops.

**A close - up of a logo

Description automatically generated with low confidenceFood Loss Metric Frequently Asked Questions, continued**

1. **What size farm operation works with the food loss metric calculator?**

This metric calculator can be used to measure food loss in **small, medium or large operations**. Tracking loss in-field can be done in fields less than one acre up to any size. Field size (or lot or block size) of 10 - 20 acres is efficient and practical. The metric calculator also offers options to track losses in packing, processing, and storage, so vertically integrated operations can use it as well.

1. **Can the food loss metric calculator be used anywhere?**

The food loss metric calculator was designed with US specialty crop production in mind. It uses standard units, rather than metric. However, other than that, **the sampling methods and calculations are suitable for global use**.

1. **What about greenhouse or controlled environment agriculture operations?**

The food loss metric calculator **can be adapted for use in greenhouse or controlled environment** operations, giving careful thought to the area calculations. Please reach out to us directly for assistance with this if needed, our contact information is below.

1. **Is the food loss metric calculator for hand or machine harvested crops?**

Any and **all harvest methods are suitable for measurement** using the food loss metric calculator.

1. **Should dropped product be measured as well?**

If harvesting by hand, typically no. However, if you want information on the amount left on the ground for other reasons (e.g., shattered during harvested), or as a result of equipment deficiencies (if mechanical harvest), that could also be valuable.

1. **What criteria are used to determine what is marketable, edible but not marketable, and inedible?**

Sorting by quality provides important insights. The suggestion is to sort by marketable, edible but not marketable, and inedible. Criteria to make this determination include size, shape, defects, maturity, color, insect/disease evidence, and decay.

The most subjective decision is about what’s still potentially edible but not marketable. This would be product that could be eaten but falls outside of marketable range for color, size, shape, or blemishes (see examples in slide 15).

It may be helpful to create more than one category for the edible but unmarketable product. As an example, for fresh tomatoes that are unmarketable, one subcategory may be right-size but too mature [red] or blemished, and a second subcategory may be right-maturity [green] but too small.

1. **Can this measurement approach be used in any geography?**

The sampling methods and calculations have been tested in the U.S. but are *suitable for global use*.

**We would like to hear any feedback that would improve this calculator.**

**Contact us directly!**

**Leigh Prezkop Lisa Johnson**

Metric Developer Metric Developer

805-345-6239 706-340-3029

Leigh.Prezkop@wwfus.org lisakjohnson4@gmail.com

lisakjohnson.com

**Alison Edwards**

Stewardship Index for Specialty Crops

aedwards@stewardshipindex.org