**Farm Systems – Thinking beyond the Vegetable**

**Objective:** Continue to develop an understanding of how all the farm systems work to take care of the Soil, which in turn grows healthy vegetables.

What is a Farm System? – Generate a list of Systems vs Tasks – refer back to this list throughout class

Systems Tasks

Irrigation Weeding

Cover Crop Fertilizers

Row Cover Trash pick up

Mulch Harvest/Clean

Layout/Design Planting/Transplanting

Use of Machines Grow Seedlings

As organic (although not certified) growers what is the most important part of your farm?

**The Soil!**

What are some of the best practices you can do to take care of your soil?

**Keep the biology of the soil intact as much as possible and use the best cultivation practice for the space.**

What are we taking care of when we take care of the soil?

**The *life* and *structure* of the soil –** Soil Power Point – highlight the structural make up of the soil and brain storm how something can have both water and air, how can farm systems help or hinder this balance?

How can we keep the soil alive and maintain the balanced structure?

-Use the right tool for the job

**The Right Tool for the Job!**

Why is it important to use the right tool for the job?

***Time efficiency, Space efficiency, Soil Health***

What are some of the best farm tools to have on your farm?

**Pitch Fork** – dig beds, harvest carrots

**Metal Rake** – To make Beds, work Compost into beds

**Shuffle Hoe** – best standing weeding tool for our soil. why? It cuts the weeds but NOT disturb the

**Hand Hoe** - Best tool for weeding on knees, can be used between rows

**Harvest Knife** – keep sharp and it will make harvest so much faster!

**Harvest Bins** – if you have harvest bins that are the same size you can learn how many pounds of each vegetable fit into each bin, makes harvesting for pounds easier

**BCS** – + lighter so less impact on the soil, - tills the soil and breaks up soil life Works best for smaller rows to break soil down again if weeds have grown up after tractor has passed over once.

**Mower**

**Tractor** – Best used for Primary Tilling, (+) to work in cover crops, bringing nutrients back into the soil,

(-) Tiling ‘burns’ organic matter, the life of the soil, with all the air that is brought into it from rotating, CAN NOT be used when soil is too wet, will compact soil TOO MUCH for good plant growth

make large beds for “group planting”,

***Talk about how Farm Layout is such an important part of using farm technology***

Use white board to draw through what a tractor based farm layout would look like vs a BCS based system. Pros/cons of each layout - When do you want to put in the time, in planning or in machine work?

- Make a bed with 3 rows, group broccoli, cauliflower and cabbage

**Why** -same family, same TIME, same SYSTEM – all need Row Cover – talk about how walk behind machines, mower and bcs would be best

-Make a bed with 5 rows, group leeks, Brussels sprouts,

**Why** –same time – could use tractor to mow and till

-Make 3 rows, no bed group broccoli, cauliflower and cabbage – same family, same time, too wide to use row cover – can not use machines well here, why? B/c of TIRES

-Make 5 rows without bed – group potatoes and green beans – why – both have bugs that come at same time in season, both have similar TIME – but with no beds, can NOT use tractor b/c of TIRES

***Group vegetables in order of time and machine use***

**When is a Crop Done?** Card system – what are ALL the pieces to growing vegetables

Intro to game,

Review beginning to end what goes into growing a row/bed of vegetables

Pass out timeline cards

Name a vegetable – each person works to use the best cards to make the timeline, we talk about it

Repeat 3-4 times