

1- How do I decide on the main crop?

- a. Note the cycle of crops in the specific bed. Each bed should cycle crop types (legumes, roots, greens, or tubers).
- b. From the **Weather Analysis** section keep note of the weather information (pops when you hover) for the month of the task. Filter the year range for better accuracy. Also, note other months with relatively similar conditions. Don't forget that you can use the textbox in the middle to keep your notes as you move from one view to another.
- c. From the **Crop Information** section, explore the **Farming Calendar** (to the left) to get names of crops that could be planted in the months you noted.
- d. Get more detailed information about each crop of interest from the Planting/Growing/Harvest modes, by clicking on the radio button above.
- e. From the **Crop Information** section, on the right-side plot, you can get three other pieces of information about the crops you're considering.
 - i. The potential prices of crops in each month of the year.
 - ii. The ideal distances between each seed when planting a crop. Calculating it in relation to the length of the crop will give you an estimate of the number of seedlings you can plant in a bed from each crop.
 - iii. The potential yield of each crop, per one seedling in Kg.
- f. You will decide on your main crops based on profitability AND preference. You will balance it, given that you aim to sell 60% of your yield.

Suggested calculations:

(No. crops ideal per bed) $X = \text{Bed length} / \text{crop planting distance}$

(Expected total yield of a crop) $Y = X * \text{crop yield per unit}$

(Expected total profit from the crop) $Z = Y * \text{Price of Crop at a given month}$

Tip: prices are at the time of harvest. To get the time of harvest you can get the minimum and maximum weeks before you start the harvest from the **Harvest** heatmap.

Tip 2: Bed width is always 1m, so length value equals area value.

2- How do I decide on the companion crop?

You need to explore the **Crop Companions** section. You can choose between four companionship filters:

- 1- **Any**: indicates a suitable companion for all reasons
- 2- **Insect Repellent**: indicates suitability based on the benefit of repelling specific insects that are harmful to the crop receiving the benefit
- 3- **Disease Control**: indicates suitability based on benefit in controlling diseases common to infect the crop receiving the benefit
- 4- **Crop yield**: indicates suitability based on improving the soil nutrition in a manner that improves the yield of the crop receiving the benefit

Note that the crop receiving the benefit is plotted on the left in the y-axis. And the crop giving the benefit (possible companion) is on top in the x-axis.

You get the information from the plot by hovering over it to get the spikes as a reference, while also using the color as a reference.

You may find several suitable companions for each main crop. To make the best decision, you need to explore information about the companion crop in the Crop Information section views.

3- How do I decide on the planting week?

You **do not** need to plant all beds in the same week. You want to make your decision based on considerations of profitability.

Planting a crop a few weeks before or after its usual time means that you will harvest when prices are higher than usual. It will also mean that you can avoid seasonal diseases that affect a certain plant.

To decide on an appropriate week, it's important to consider the planting and growing temperatures you received from the **Crop Information** section.

Then, in the **Weather Analysis** section, check the weather averages for each week around the period of intended planting.

Look out for previously recorded **frosts** (below 4 degrees Celsius) or **heatwaves** (above 35 degrees). These are uncertainties and past averages. You make your decisions based on your assessment of the data and its uncertainty.

Crop types (Note that fruits includes bulbs and legumes includes seeds).