Art & Science of Cultivating Soil

Drawing Business Insights from Data

Thriving in Extreme

Ratio of N > 84.25
Banana, Coffee, Cotton, Muskmelon, Watermelon

Ratio of P > 68
Apple, Banana, Grapes, Lentil

Ratio of K > 49
Apple, Banana, Chickpea, Grapes, Muskmelon, Papaya, Watermelon

Rel. humidity > 90%
Apple, Coconut, Muskmelon, Orange, Papaya, Pomegranate

Rainfall > 124.24 mm
Coconut, Coffee, Jute, Papaya, Pigeonpeas, Rice

1. Pulses family require very less Nitrogen and Potassium in soil. They also need less humidity to grow.

2. Melon family is seen to thrive in Nitrogen and Potassium rich soil. They also require high humidity but very less rainfall.

3. Rice requires the most rain and decent amount of humidity to grow. Ideally, the land should be rich in Nitrogen and have above 80% relative humidity.

4. Plants like Apple and Grapes are the ones which require extreme conditions to grow. These two plants require high amount of P & K in soil (or fertilized with these elements).

*Assumption: Crops requiring >75 percentiles of a resource are considered extreme requirement

Companion Planting

- Based on the data, we could find out that following clusters of plants can be grown together. These clusters can be influenced by more than one parameter, due to which some crops can be repeated in more than one clusters as well.
- As mentioned earlier, we can see family of crops falling in the same cluster, e.g.All Pulses can be grown together as they all require low nitrogen ratio in the soil and hence the fertilizer must be selected accordingly.

Low Nitrogen Group (Pulses)

Blackgram, Chickpea, Coconut, Kidneybeans, Lentil, Maize, Mothbeans, Mango, Mungbean, Orange, Papaya, Pigeonpeas, Pomegranate

High Nitrogen Group

Banana, Coffee, Cotton, Maize, Muskmelon, Papaya, Watermelon

Extreme Phosphorus & Potassium

Apple, Grapes

High Rainfall

Coconut, Coffee, Jute, Papaya, Pigeonpeas, Rice

Its Oranges!!

- Based on the predictive model that we have build, we can identify which crop would grow the best if we know soil and weather factors.

- For instance if the soil contains NPK in ratio 2:3:1, and if the temperature and relative humidity at that location is 15^{o}C and 90% respectively, we can say that Oranges would grow in such a location with 96% surety given that the annual precipitation is around 100 mm and the pH of the soil is 7.5.

- To try out our predictive model for your soil, email us at opitimize@dont.anonaddy.com


Optimize Inputs
Optimize Time
Optimize Crop's Performance
Thank You