SPROUTIQ

Choice of Seed

CHOICE OF SEED

Possible Topics to Cover

Type of Seed

- Conventional (which may include GMO)
- Non GMO

- How quickly the seed emerges
- How tall the resulting plant is
- How does the resulting plant stand throughout the year?
- How strong are the resulting plants roots, stalk/stem?
- How is the resulting plant affected by various insects and diseases?
- How is the resulting plant is affected by it being planted on various soil types?
- How well does the resulting plant preform under stress from excess water or drought?
- How well does the resulting plants yield stack up to others?
- How long will it take the resulting plant to mature for harvest?
- How does the resulting plant react to various populations and row spacings?
- What weed pressures do the farmers fields have?

GMO VS NON-GMO

GMO – Genetically Modified Organism

There is amounting evidence for the damage GMOs cause for the environment and health issues. However it is heavily debated and the no one is 100% if these do more good or harm for us.

The said benefits are…

- Better taste
- Increased nutrients
- Resistance to disease and pests
- Faster output of crops.

GMO VS NON-GMO

Non GMO – Non-Genetically Modified Organism

As stated before there is amounting evidence for the disadvantages of GMOs and thus growing NON-GMO is mostly said to be more healthy and better for the environment.

An example of a disadvantage to the environment is the creation of 'superweeds'. This is done by the pollen of the GMO plant which is more insect/herbicide resistant and the characteristics can pass onto weeds making them harder to remove.

An example of a disadvantage for us the consumer is that the pesticides will be in the food we consume and that can have a myriad of detrimental effects for us.

VARIETIES

Seed Choice is vital as its not just choosing what crop to grow but also what **variety** you decide.

E.G Okra varieties in the USA

Clemson Spineless OG

Organic Okra Seed

Traditional OP, the standard variety in the South.

Carmine Splendor

(F1) Okra Seed

Red, high-yielding, and uniform.

Jambalaya

(F1) Okra Seed

Early and high-yielding with very uniform, dark-green pods.

VARIETY DIFFERENCES

Each variety will have…

- Different Yields (Different amount of veggie / Crop from 1 plant)
- Different Shape of crop (The shape of the crop might be longer/bigger)
- Different harvesting dates (Crop might be faster or slower to grow)
- Different Soil/Climate Requirements
- How Strong/resistant they are to diseases

Depends what you need / What the climate is

THE SEED TO CHOOSE

So we would need to choose the variety most suitable to our climate in Brunei

Hot / Heavy Rain / Humid Climate

Also if the variety of the crop is more resistant to common diseases/pests in the site that would be a bonus.

REGION REQUIREMENTS

Farmers might need to choose a certain variety for the end product (crop) requirements.

E.G melons in the middle east need a high sweetness content. Whereas in South East Asia the sweetness requirement is much less.

So depending on what kind of level of crop (More sweet / Bigger crop) the seed variety is also important.

QUOTA REQUIREMENTS

- However some farmers need to reach certain quotas (Amounts) of the fruit/veggie e.g 500kg of Eggplant.
- So from this you would think they would decide to use the variety that maximizes yield even though it might not be the best variety for disease/pest or integrity.
- This is supported by the farmer also taking the necessary measures for pest/diseases or any of the shortcomings for the seed choice that they decide.

EXAMPLE OF SEED CHOICES

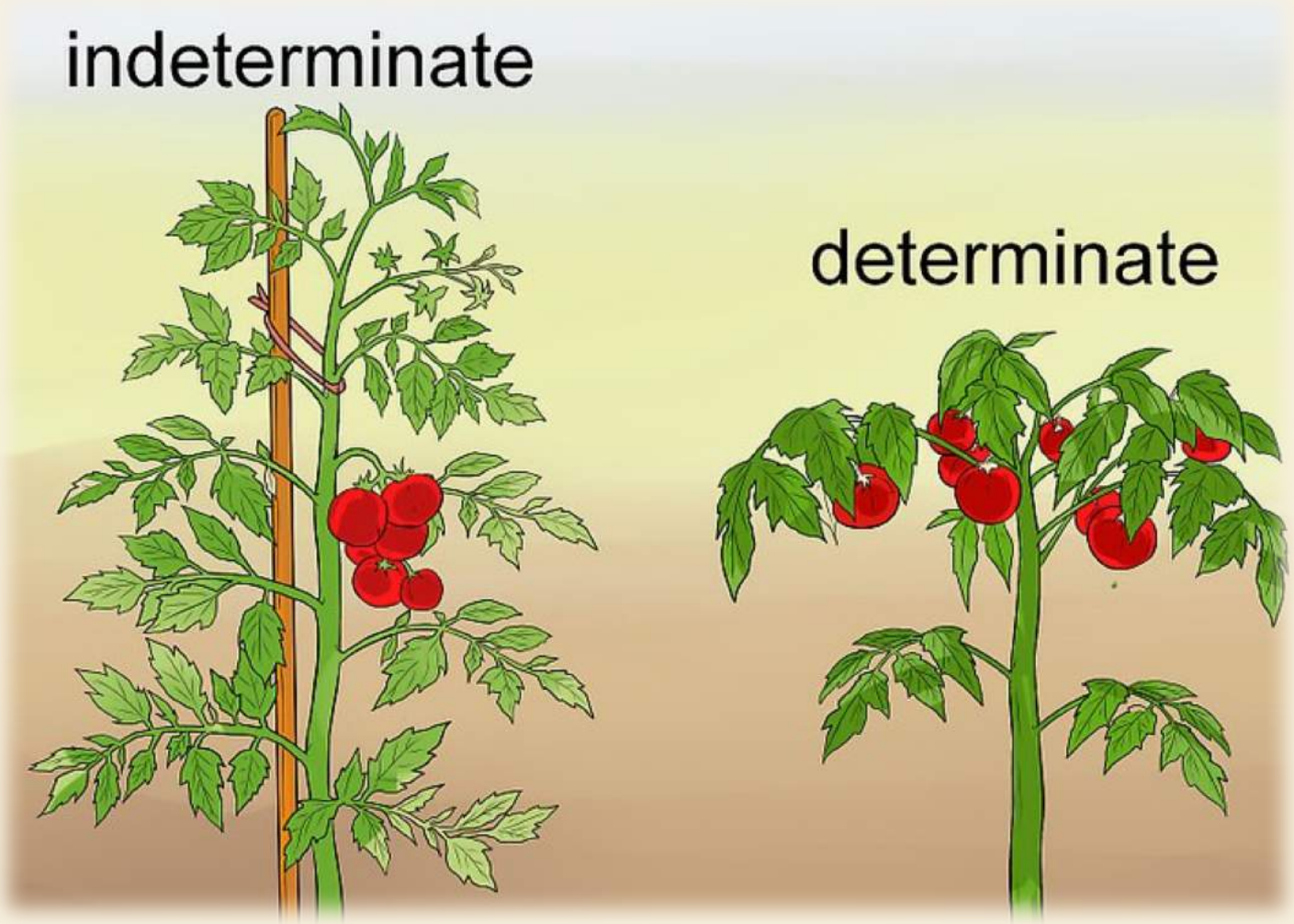
1 -> High Yield but late harvest

2 -> Normal Yield but Early Harvest

3 -> Low Yield but Early harvest + more disease resistant.

SO your farming conditions AND needs will influence what seed you will choose in the end.

VARIETY CASE STUDY – TOMATO DETERMINATE VS INDETERMINATE



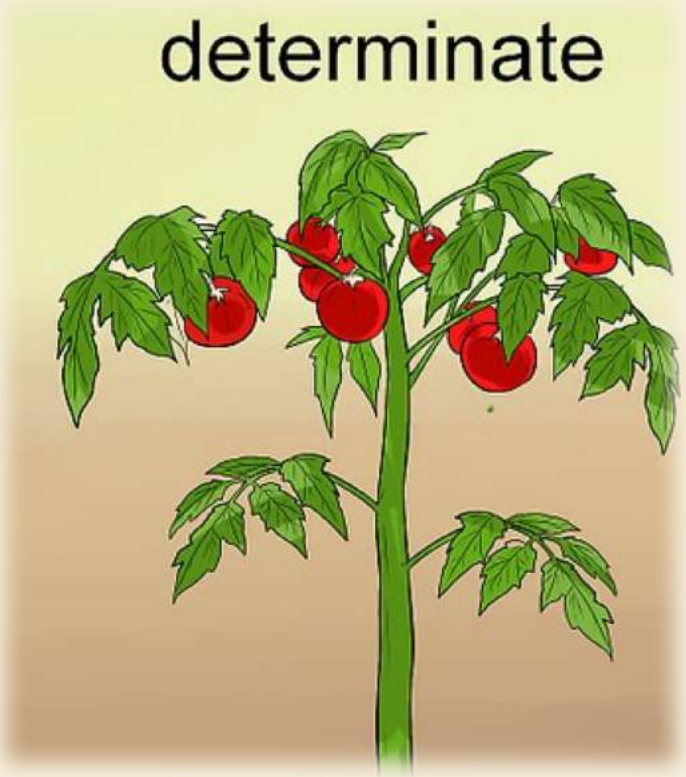
Different types of tomato plants can be distinguished

1. **Tall** or **indeterminate** type (6 to 12 feet)

- They keep growing after flowering. This feature is called “indeterminate”.
- The tall varieties are the best choice for a long harvest period.
- The fruits are slower ripening and have a high foliage
- Requires staking

2. **Short** or **determinate** type (3-4 Feet)

- Requires no staking
- “Determinate” means they stop growing after flowering.
- They have a relatively concentrated fruit set which lasts only two or three weeks
- The fruits ripen much faster than those from indeterminate types.
- They require less labor, so they are popular for commercial cultivation.



DETERMINATE VS INDETERMINATE

Determinate –	Easy to manage because no pruning is necessary as they grow short and fast.
	Ripen a lot faster than indeterminate varieties
	Fruit Ripen at the same time
	However only grow fruit once.
Indeterminate -	Hard to manage as they grow tall and pruning is proven to increase yields
	Ripen slowly compared to indeterminate varieties
	Can have multiple harvests from the same plant