**RATU NAVULA COLLEGE**

**YEAR 10 NOTES AND ACTIVITY 2021 – WEEK 3**

**AGRICULTURAL SCIENCE**

**SUBSTRAND 10.3.2 HORTICULTURE**

**C.L.O: Discuss and demonstrate methods of plant propagation**

**Lesson 35: Sexual Propagation**

**Learning Outcome:** Explain what sexual propagation is/ State three advantages and three disadvantages/ Differentiate between cotyledon and dicotyledon seeds

What is sexual propagation?

It is a process of producing plants through seeds.

Types of seeds:

**Monocotyledon seeds**: these are seeds with only one cotyledon or seed coat

Examples: pawpaw, rice, maize, coconut, grass

**Dicotyledon**: these are seeds with two cotyledon or seed coat

Example: mango, citrus, bean, peas



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| --- | --- |
| **Advantage of sexual propagation** | **Disadvantages of sexual propagation**  |
| * Can produce hybrids
 | * Genetic variability due to hybrids
 |
| * Can handle large number
 | * Some seeds are slow or hard to germinate
 |
| * Large number of plants can be produced in a short time
 | * Some plants cannot produce viable seeds
 |

Activity

1. Explain what sexual propagation is.
2. Differentiate between monocotyledon and dicotyledon seeds
3. List two advantages of sexual propagation.

**Lesson 36**: Asexual Propagation

**Learning Outcome**: Explain what asexual propagation is/State two advantages and two disadvantages/Identify some methods of asexual propagation

What is asexual propagation

It is a method of producing new plants through the **vegetative** parts of the plant.

**Vegetative parts** – any part of the plant but not the seed.[stem, roots, rhizome, bulb, suckers]

 Two advantages - all new plants(offsprings) are similar to the parents

 Takes short time to mature

Two disadvantages – a lot of work needed/ can only propagate a few from each parent

**Some methods of asexual propagation**



**Lesson 37 :** Budding

**Learning Outcome:** Discuss how budding is done

*Scion*: upper part of the plant that contains the branch and leaves

*Rootstock*: lower part of the plant that contains the roots

*Cambium*: part of the stem that contains xylem and phloem vessels

**What is budding?**

It is a method of propagation where a bud(scion) of one plant is grown onto the stem(rootstock) of another plant.

* In Fiji this method of propagation is practiced on citrus, guava and mango
* It can also be done on flowers
* Both plants must belong to the same family

**How budding is done (principles)**

What is needed : budding knife/clear plastic/budding tape/scion/rootstock



Activity

1. Explain what budding is.
2. Explain the four steps in budding.
3. Practice budding at home.