

## **MANAGEMENT & CONTROL OF GENERAL WEEDS**

### **1. Introduction**

Weeds are classified as plants or plant breeds that are not desired but grow within the farm.

### **2. The purpose of weed management in the farm:**

- i) Reduce competition with the planted crop in obtaining nutrients, water and sunlight.
- ii) Reduce competing weeds that can impair the growth of the crop (oil palm), e.g., sword grass or 'lalang', drought grass (*Ischaemum muticum*), mile-a-minute (*Mikania micrantha*), etc.
- iii) Provide a weed-free condition at the circle area around the base of the palm tree or at the fruit bunches drop area ('drop zone' if the tree trunk grow curved up), to ease spotting and collection of oil palm fruit bunch and loose fruits.
- iv) Protect soil from erosion, maintaining soil moisture and soil fertility by promoting the growth of soft grasses, ferns or legume cover crops in areas between oil palm trees.

### **3. Weed Management Methods**

- (a) Weeding at around the Palm Circle area or in the Drop Zone of the Oil Palm Fruit Bunches
  - Provide a weed free condition within a circular radius of 1.5 metres (5 feet) around the base of the tree trunk.
  - Make sure that there are no weeds or rubbish in the circle for ease of loose fruits collection.
- (b) Weeding for the Oil Palm Fresh Fruit Bunches (FFB) Extraction Path
  - Weeding on path way with a width of one metre or narrower between the trees, when necessary or depending to the methods of removing fresh fruit bunches (FFB) out from the area.
  - Weeding of walkways connecting tree to tree for extraction of FFB and loose fruits, as well as for applying fertilizer, pruning and etc.

(c) Weeding the Oil Palm Fresh Fruit Bunches (FFB) Collection Platforms

- Weeding at the fresh fruit bunches (FFB) and loose fruits collection platforms to ensure that no loose fruits is left out during loading from site up to the truck.

4. Weed Control

(a) Manual/Mechanical

- i) Cutting or pulling out the weeds manually - slow and time consuming.
- ii) Slashing by using grass-cutting machine – fast weeds regeneration.

(b) Use of Herbicide

- i) Provide a longer weed control duration and it is easier to implement as compared to mechanical weeding.

- ii) In general, herbicides are divided according to its mode of entry of the poison into the plant and the way it controls the weeds:

(1) Contact Herbicide

- Damage the tissues of the leaves and stems that come into contact with herbicide.
- The leaves and stems of weeds need to be thoroughly sprayed.
- Example of contact herbicide: glufosinate ammonium (e.g. Basta®), sodium chlorate.

(2) Systemic Herbicide

- Enters into the plant tissues through roots or leaf absorption.
- Damaging the weeds by interfering with its growth and biochemical functions.
- Example of Systemic Herbicide: glyphosate isopropylamine (e.g. Roundup®), metsulfuron methyl (Ally®)

- iii) Herbicide Spraying Equipment

- Knapsack Spray Pump

5. References:

(a) Chung, G.F., Lee, C.T., Chiu S.B. & Chee K.H. (2013) Pictorial Guide to Common Weeds of Plantations & their Control, Agricultural Crop Trust, Petaling Jaya.

(b) Rankine, I.R. & Fairhurst, T.H. (1999) Field Handbook: Oil Palm Series Vol. 3 Mature, International Plant Nutrition Institute.