Raising & Breeding

Raising mealworms is fairly easy since they are prolific breeders and are hardy insects. It is also fairly inexpensive and can save you quite a bit of money if you use a lot of worms every month. They rarely smell, are easy to care for, and don't take much work.

Breeding will take a while to get started, but once there are plenty of beetles laying eggs you will have worms for as long as you need. All you need is a container, substrate, and a source of food and water.

Container
The container should have a large surface area and smooth sides. The sides of the container only need to be a couple inches higher the substrate in order to prevent the worms from escaping. An aquarium, terrarium, plastic box, or container will make an excellent home.

The container will also need a screened lid to prevent other insects and creatures from getting in and to allow airflow. Good ventilation is needed to prevent the container from getting to warm and to prevent the buildup of humidity and mold growth. If you are using an aquarium, there are screened lids available. For a plastic box you can cut away most of the lid and attach some window screen.

Mealworms and beetles like to be able to crouch under toilet rolls or egg cartons which they may also consume a bit.

Food Substrate
The substrate of the container will be the food. You can use wheat bran, oatmeal, cornmeal, wheat flour (it has to be a a bit rough), cereal, ground up dry dog food, or a mixture of these dry foods. Fill the bottom of the container one-three inches deep with the food substrate. You will have to add more food regularly since mealworms are big eaters. Considering our climate some of the above suggestions are less suitable due to smells, attacking flies/cockraoches etc. Personally I use whole oats for the beetles as it makes it easier to sift out the eggs. Eggs and mealworms I keep in bran. When I clean this tub out I sift the bran out and add clean bran to the tub before adding the mealworms. During the wet I do this more often to prevent odour and thus use a smaller layer of substrate. You may loose some little ones with the sifting but both the dirty substrate (full off poo) and the little ones can be added to your garden and/or chook pen.

Water
Slices of potatoes, apples, carrots, cabbage, celery or other fruit and vegetables can supply water to your worms. Potatoes, carrots or apples are often preferred since they last a while and do not mold quickly. Do not use a bowl of water since mealworms will crawl in and drown.

Temperature, Lighting & Humidity
The ideal temperature for growing your colony is around 30 degrees C. You will want to keep the container away from windows and direct sunlight to prevent it from becoming too warm. In Broome we need to take heed of their preferred temperature: around 30 degrees Celsius. If it is hotter you will have to provide cooling. Heat can kill them plus they may start to smell.

Light is not necessary. A normal day and night cycle of light will be fine. Direct sunlight in Broome really is too hot. To keep them cool enough during the wet season, they either need to be in the very coolest part of your house or in airconditioning.

You colony of mealworms will reproduce more quickly with a higher humidity, but for most areas the natural humidity in the air will be sufficient.

Maintenance
Any dead worms, pupae, or beetles should be removed from the container regularly. If the container begins to smell like ammonia or becomes moldy, it is time (or a bit late) to clean the container. You will need to remove all of the mealworms, beetles, and pupae, discard the food and waste, and clean the container. Once clean, replace the food substrate and return the insects to the container.

It is helpful to have a second container to aid in raising mealworms and keeping them odor free. After your colony is going strong, you can move any beetles to the second container where they will begin a new colony.

Some have many layered farms with worms in various stages of the life cycle. I like it simple but not too simple: you can keep all in one container but they may eat each other and it will be hard to not loose eggs and small worms when cleaning it out. I prefer two containers: one with mealworms and one with some beetles and some pupae. The beetles lay many eggs and you won't need that many. Keep some pupae on the go for a next generation (you can pop them in an egg carton by themselves and cover them with substrate so the beetles won't eat them when hungry). Harvest the mealworms regularly as they will move on to pupae quick in our climate. Mind: chickens don't mind if they eat pupae or worms and the nutritional value is similar. For your own consumption you want to get them as meal worms in time so once fat and long enough: harvest them as per seperate info sheet.

For the clean out you will need a sieve and some extra bowls or containers to separate what you want to keep and want to you to discard. I have understood that the plants and trees thrive on the waste mealworms produce so either give it to them or add to your compost.