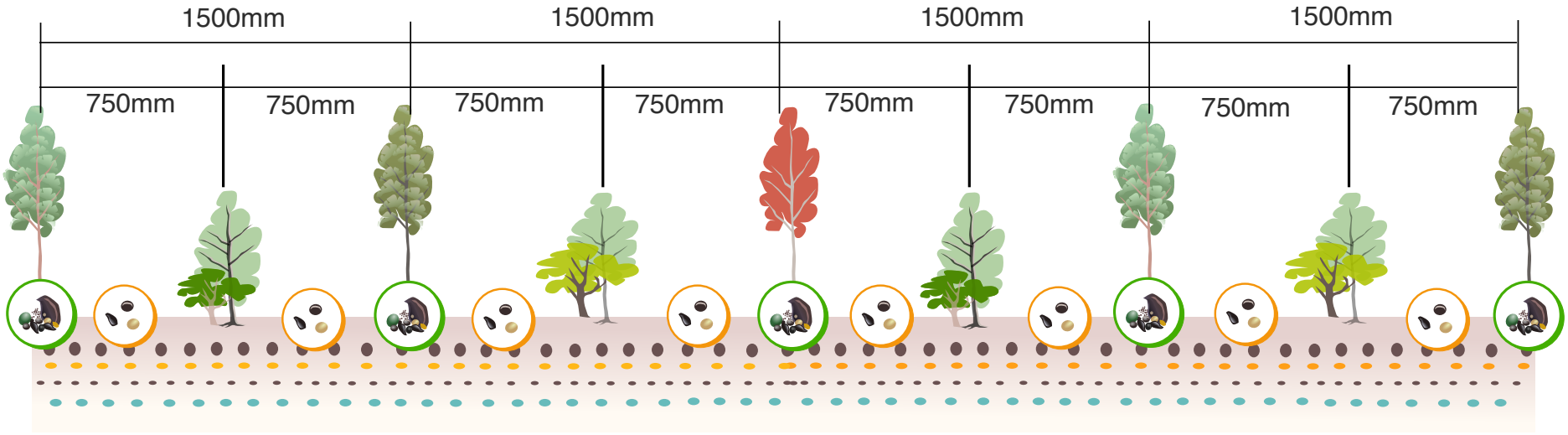
Workshop Guide For Bellevue



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Semi arid subtropical climate, non irrigated site

We will be designing and planting according to what will occur in the period from Placenta 1 to Mid Secondary succession with no irrigation. All species from that point on which will grow to Late Secondary and Primary forest will be facilitated by the seed bank that we plant in the present and the near term.

The function of this consortium is to get a foothold in the ecosystem, stabilise a Macro Organism, consolidate and work to increasing the generation of biomass and life. During this time sheep will be used to browse a disturbance cycle on the plantings.

Options are open going forward for any type of specified yield, being enabled by planting on a disturbance cycle.

This system will not be irrigated, so we will rely on well adapted and hardy native plants to get a hold on things and hinge the rest of the consortium from this.

Local emergent strata - Acacia harpophylla (Brigalow), Casuarina cristata (Belah), Eucalyptus populnea (Poplar box), Acacia salicina (Sally wattle) will be planted with local medium strata - Geijera parviflora (Wilga), Pittosporum angustifolium (Gumbi gumbi).

All other species included in the consortium will come from seed.

Millmerran	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Mean Max (°C)	31.0	30.2	28.9	26.0	22.3	19.3	18.9	20.8	24.4	26.8	28.9	30.5	**25.6**
Mean Min (°C)	18.0	17.8	16.2	11.6	7.4	4.4	3.0	3.7	7.6	11.7	14.7	16.9	**11.0**
Mean Rain (mm)	78.6	81.4	55.3	29.1	40.0	29.3	28.5	25.0	30.0	57.6	73.9	90.0	**617.0**
Mean Rain Days	7.8	6.7	6.8	5.0	5.8	6.0	5.9	4.5	5.1	7.1	7.6	8.2	**76.7**

Species Succession

We are working with the stage of species succession circled in the diagram

Syntropic agriculture follows a disturbance and recovery cycle

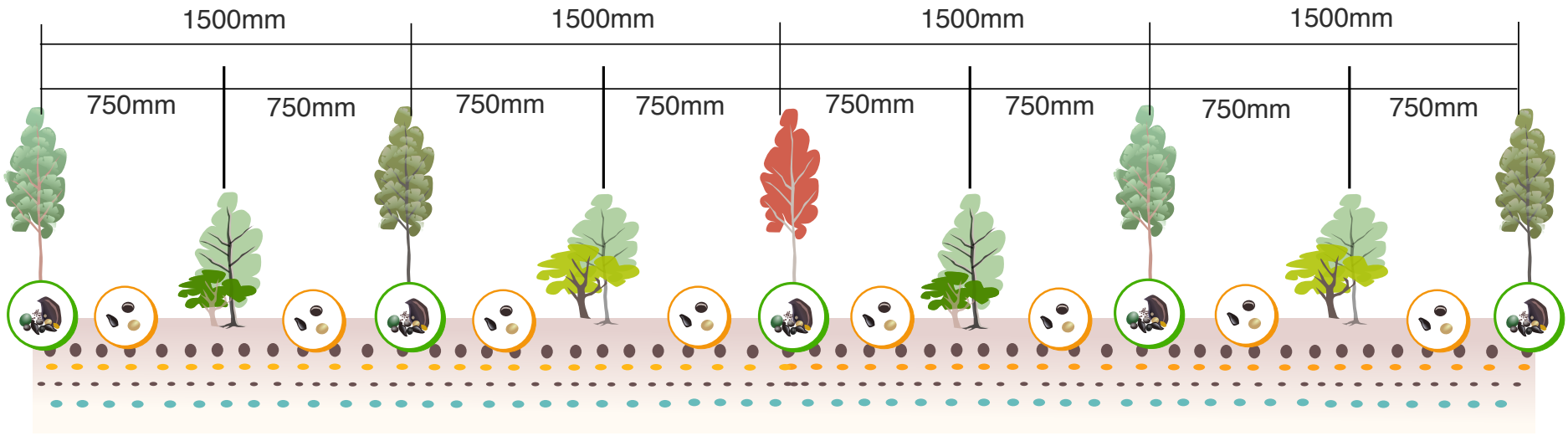
If a full recovery is allowed, the ecology will move upward in species succession after each disturbance cycle

A full recovery must occur before every disturbance cycle

As species succession moves upwards, higher quality plants occur in higher numbers, meaning more biomass is fed to the soil after each disturbance cycle

And so on it goes, continually increasing in quality and quantity.

Planting pattern



This planting has a simple order to it to ensure that all of the combinations, spacings, densites of plants are correctly observed while keeping the task orderly and simple.

The process is broken into 2 components

1 - Organise planting material.

2 - Plant each group in the correct order at the correct spacing.

Organise planting material

Step 1. First we must distinguish the living plants from the seed.

Living plants (seedling) to be planted - Box, Brigalow, Belah, wattle, Gumbi Gumbi and Wilga.

Prepare for planting correct amount of each species and then couple a Wattle with each Gumbi Gumbi and Wilga

Brigalow x5

Mid Secondary

Belah x5

Mid Secondary

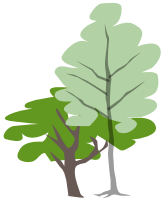
Box x5

Mid Secondary

Wilga/ Wattle x7

Mid Secondary

Early Secondary



Gumbi Gumbi/Wattle x7

Mid Secondary

Early Secondary

Organise the seeds into 3 different groups.

Starter Seeds

Starter seeds - These are the plants that are early succession and need to be planted in higher numbers, so as they have a similar planting style, we can group and sow them togerther.

These will be Cow Pea, Pigeon Pea, Leucaena, Tagagaste.

Salt Bush will be added as well, although it is higher succession, it suits being planted in this density.

- **Placenta 1**
- **Placenta 2**
- **Early Secondary**

Crop Seeds, Tool Seeds

Crop Seeds and Tool Seeds - This is the seed group where you want a specific plant at a specific density, this suits plants like a tree you want as a crop, or a tree you know is a pivotal species in supporting the consortium. It is good to be able to plant this combination at a density you choose, independent of the main seed bank.

In this consortium, Pomegranate, 2 types of Persimmon and Salt Bush varieties will be planted.

- **Early Secondary**
- **Mid Secondary**

Seed Bank

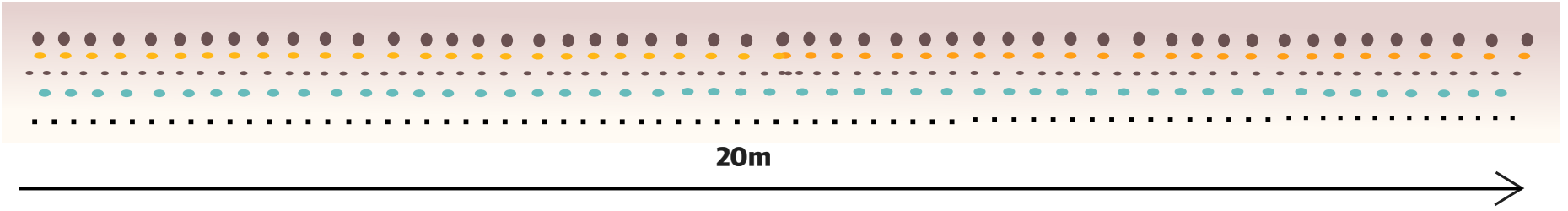
Seed Bank - Probably the most important of the lot. This seed bank includes all of the seeds you can provide, without discrimination - letting the system itself decide which grows best. Keep adding to this seed bank for as long as you can - the whole forest will depend upon it. All unwanted and excess trees from this seedbanks are pruned and brought to the ground as biomass to feed the soil.

- **Early Secondary**
- **Mid Secondary**
- **Late Secondary**
- **Primary**

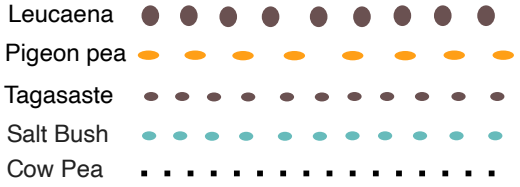
Once seeds have been grouped, Crop & Tool seeds and Seed Bank will be metered out into paper cups for placement

Plant each group in the correct order at the correct spacing.

Step 1



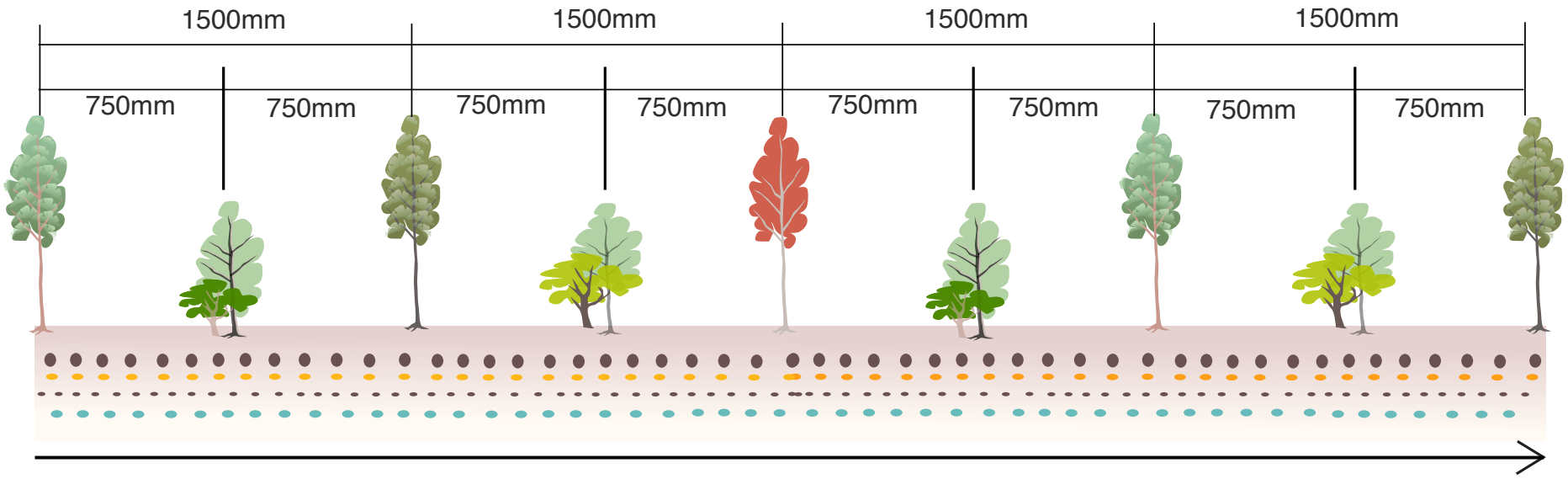
Starter Seeds



Starter seeds are the seeds which will be planted in higher density, these plants will have a higher populaion, smaller size, and shorter lifecycle (except saltbush). Seed group 1 is important for establishing an early canopy to help shade the soil and keep it cooler. The plants in the starter seed group are important for providing shelter, accumulating biomass and nutrients for the higher succession species following.

We will meter out the seeds at the correct rate into a furrow to conclude step 1.

Step 2



Brigalow

Mid Secondary

Belah

Mid Secondary

Box

Mid Secondary

Gumbi Gumbi/Wattle

Mid Secondary

Early Secondary

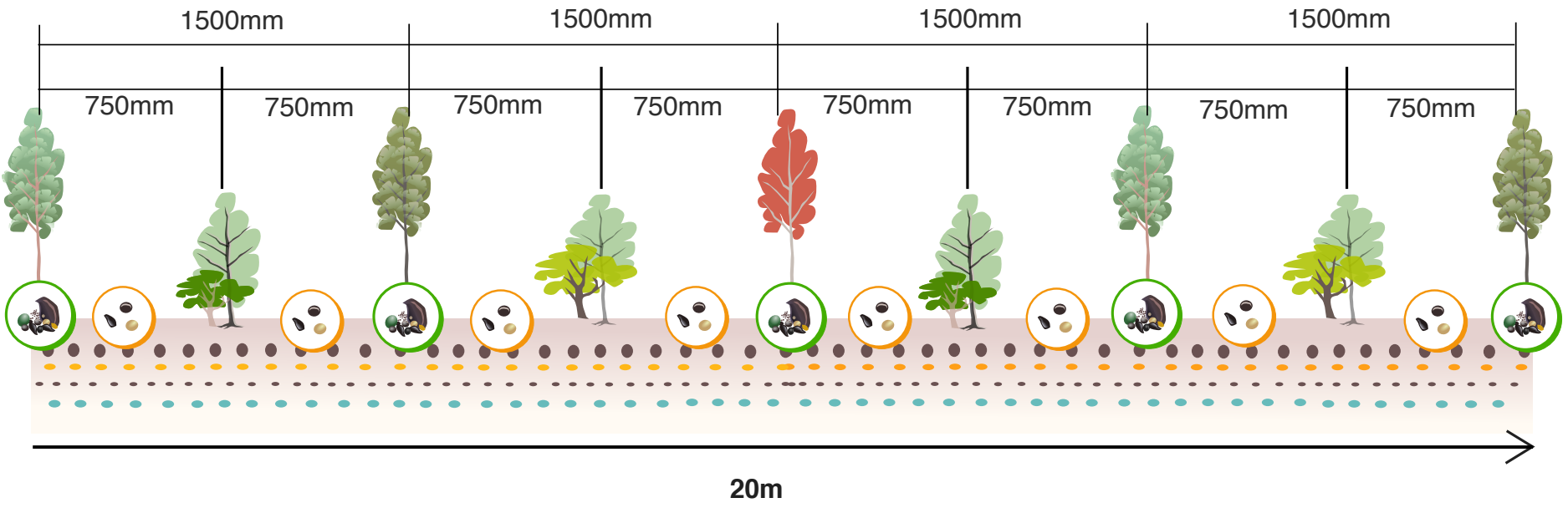
Wilga/ Wattle

Mid Secondary

Early Secondary

Plant out trees according to diagram above

Step 3



Crop Seeds, Tool Seeds

Seed Bank

Plant seed groups according to diagram above, use trees as markers - seed bank planted together with Brigalow, Belah, Box.

Crop & Tool seeds planted between trees.