



SEASONWATCH: DATA COLLECTION PROTOCOL

HOW TO SELECT YOUR TREE

- Find out which of the plants in your area are on the SeasonWatch list and select individuals of these species near you. Please select trees whose identity you are sure of. Please contact us for any help with tree identification.
- If possible, monitor multiple individuals (1–5) of each species.
- Given a choice, choose larger trees that look healthy (i.e., that do not have any obvious insect infestation or fungal infection).
- Try not to choose trees that are regularly lopped/cut or are completely cemented at the base.
- Please try and select at least one of the 'Focal species'. These fifteen species are common and abundant across most parts of India. Information from these will help us calibrate the naturally occurring differences in the timing of overall plant phenology, which are likely to happen due to geographic and climatic differences across the length of the country.

REGISTER YOUR TREE

- Once you have selected an individual tree, you will need to add it to 'your list of trees' on the SeasonWatch website or using a printed form along with information about the individual tree and its location.
- Please make sure you give a unique nickname to all your trees. Choose simple and easy-to-remember nicknames, such as 'Home Neem' and 'Campus Neem', so that at the time of data entry, you can differentiate these two Neem trees without any trouble.
- To measure the girth (circumference) of your tree you can use a simple flexible measuring-tape. Select the main trunk of the tree at chest-height (approx 1.4mt or 4.5feet from the

ground) and measure the girth in cm. You can also use a length of string and measure it with a rule. Some trees may branch well below chest-height but have single pith at ground level – in these cases measure the circumference below the lowest fork. This measurement is optional.

- For each individual tree you are monitoring, please find out if the tree receives any inputs like water and fertilizer.
- If possible, take images of the leaves, the trunk, the flowers and the fruits (as and when these appear on your tree) and send these to us by mail or post.
- Note the approximate height of the tree if possible. This can be visually approximated, or by using the height of a known reference in the vicinity (a building or pole that can be measured).
- If your plant is on a hill, please try and note the direction/aspect (if the hill slope faces north, south-east, etc). Also, try to note the incline of the slope in degree by visual estimation, or by using a protractor (e.g. slope of 20°).

HOW TO MONITOR YOUR TREES

- For help with locating and identifying your specimen you can make a tag (a small square of transparency sheet) with a hole and tie it around a branch of the selected tree with a coir/nylon string. You can write the nickname of the tree on the tag with permanent marker and covered with cello tape. This will be particularly handy if your tree is a part of a cluster of similar looking trees. Do not nail the tag to the tree.
- Please try to monitor your trees once a week or at least once in two weeks. Some phenological phases can be very short and can easily be missed if you do not monitor regularly.
- Spend 5 min at each tree looking at all the sections to ensure that you have not missed any relevant observations.
- Use a print-out of the phenology monitoring form to make weekly observations on your trees. You can then enter these observations onto the SeasonWatch database or mail them to us once every few weeks.

- Note down your observations on the presence/absence of leaves (young and mature), flowers (buds and open flowers) and fruit (unripe and ripe).
- Also try and approximate the amount of these in percentage. Choose "Few" if you find that approximately 1-30% of the canopy/crown-cover is covered by these; "Many" if it is 30-60% & "Full" if approximately 60-100% of the branches are covered by these.
- Please also look for any birds, insects or other creatures (including humans) that might be using the tree in any way (e.g. drinking nectar, eating fruits, collecting leaves and so on) at the time of observation and record these in the database.
- Do write to us if you have any questions regarding the phenological states (leaves, flowers and fruits) observed in your tree. Note that the flowers of fig trees (including banyan and pipal) are inside the fruits and cannot be observed from outside – and so we do not attempt to track flower phenology of these species (but fruit and leaf phenology can be recorded).

Some general definitions

- Fresh leaves are those that have newly emerged – these often have a different colour (they are brighter green, or sometimes are red) than mature leaves.
- Flower buds are those that have not opened yet.
- In some species, dried seed-pods burst open to disperse the seeds. Such opened seed-pods should not be considered "ripe fruit" and they should be ignored.