How sustainable is your houseplant scoring system

This scoring system will be used on the plants displayed in the Houseplant display for the in-person Sustainability Challenge at Cambridge University Botanic Garden (CUBG). Each plant will be given a label (figure 2 and 3) which will have some/all the information outlined therein. The scoring system will include an assessment of the plant from several distinct aspects including the species and its plant care requirements, how the plant was obtained, and the plant care practices employed in the home to maintain the plant. The final score will be calculated using a unique combination of scores from each of these sections weighted evenly. Scoring is based as far as possible on peer-reviewed research into the carbon footprint of the floriculture industry, however, as plant requirements can range depending on the environment/country it is kept in, this is a level of subjectiveness required when scoring plants. E.g., plants may not need additional lighting in countries with consistent days or plants may need different amounts of water depending on how humid the country it is in is. The lower the score the more sustainable the plant. [Put your score into the Plant Calculator to find out the plants total score.](https://docs.google.com/spreadsheets/d/1GekLJp2-F9oGHYpJCdM-ngTwlcA5CgiT/edit?usp=sharing&ouid=109606247661805451757&rtpof=true&sd=true)

Table 1: The houseplant scoring system

| **Category** | **Worst - 5** | **4** | **3** | **2** | **Best – 1**  **(0 =N/A)** |
| --- | --- | --- | --- | --- | --- |
| Section one- Plant species basic care requirements linked to baseline resources required to maintain the plant i.e., tropical, succulent, cacti etc. | | | | | |
| **Difficulty** | Specialist care and equipment |  | Requires a good understanding of its requirements for it to thrive |  | Simple and low maintenance |
| **Heat requirements** | Specialist equipment  Tropical |  | Must be placed in specific places within your home (e.g., must be in a room kept at a certain temp like cannot be put in the kitchen as it is too warm) |  | What your house’s current conditions are aka can be placed anywhere in your home |
| **Light requirements** | Specialist equipment |  | Must be placed in specific places within your home (e.g. must be in full sun) |  | What your house’s current conditions are aka can be placed anywhere in your home |
| **Nutrients requirement** | Needs regular feeding  Or  Needs specific micronutrients/pH to survive |  | Needs feeding during growing season |  | Can grow in soil that is from garden centres. Does not need regular or any feeding |
| **Water requirements** | Very thirsty |  |  |  | Barely needs water |
| Section two – How the plant has been maintained (not species specific) | | | | | |
| **Watering** | Watered every day |  | Watered on a weekly schedule |  | Only watered when needed (finger comes out clean when stuck in soil) |
| **What type of water is used** | Bottled water or treated water |  | Mains/ drinking water |  | Water used is from cooking water (boiled veg/pasta water) or greywater (which is safe for plants) or rainwater |
| **Growing medium** | Contains peat and the growing medium is not suited to conserving water for that plant. Eg if a plant requires moist conditions but its growing medium does not allow for moist conditions (lots of sand) |  |  |  | No peat and is suited to plants requirements. |
| **Light provision** | HPS grow light | LED grow light | Your energy provider is a renewable energy provider, and you use grow light regularly | You only use grow lights when there is not adequate light | Uses natural light available |
| **Heating provision** | Heat mat and heat bulb provided continuously |  | Your energy provider is a renewable energy provider, and you use additional heat regularly | You only use heat mats when there is not adequate heat | The temperature of your home is suitable for the plant and no additional heat is needed |
| **Pot used** | Purchasing weak, thin, and black plastic plant pots and seed trays | Purchasing new plant pots that are strong enough to be reused | Sharing/borrowing/swapping pots with others |  | Re using kitchen containers or old pots |
| **Pesticide and herbicide use** | Used regularly regardless of if there is a need for it | Used only when required | Nontoxic pesticides and herbicides are used | Plants are quarantined to decrease number of plants that need pesticide/herbicide used on them | Physical means are used (removing by hand, changing the soil to fresh sterile soil) |
| **Fertiliser use** | Used regularly regardless of if there is a need for it | Used only when required | Organic fertilisers are used only when required | Use locally sourced organic fertilisers | Organic fertiliser made at home. Wormery/ compost heap |
| Section three – Procurement | | | | | |
| **Where was it bought** | Unknown seller | Seller that is not registered with the government as a plant seller or/and is not authorised to issue plant passports | The seller was registered with the government as a plant seller and is authorised to issue plant passports (only if plant is delivered by post) | Local reputable seller that is peat free | The plant was gifted to you as a cutting from a known person (friend or local certified plant seller) |
| **How far did it travel to get to you**  **Plant miles** | Unknown | Elsewhere in the world | Europe | British grown | Local reputable seller that is peat free  OR  Cutting/seeds from a known person (friend or local certified plant seller) |
| **Age of purchase** | Fully grown / large adult plant | Small adult plant | Small immature plant | Rooted cutting  /Seedling | Seed/bulb/cutting |
| **How was it obtained by the seller?** | Unregulated wild collected. |  | Intensive farming/nursery of plants which use excess pesticides and fertiliser |  | Regulated wild collected and/or  Sustainability grown on a farm/nursery |
| **Section 4 – Extras** | | | | | |
| **Does your houseplant have useable properties?** | No, purely aesthetic |  | Scented or offers other uses |  | Yes, has food / medicinal uses |
| **How long will it last under the right care?** | Annual |  | Perennial  (Short lived) |  | Perennial  (Long lived) |
| **How long would it survive if uncared for in your home?** | Would not survive a day without care |  |  |  | Would survive several weeks without care (does not require watering / fertilising regularly) |

Number ranges and colour

The lower the number the worst the plants sustainability score. The score of the plant can be found using table 1. Once they are added together find were it fits on the colour range below. The colour range is from green to red, to make it clear on a glance what the plants score is.

The label will include a sentence which will indicate the reason for the colour and number. The sentence’s structure is “This plant is in [soil medium and pot], [province] and [care instructions]”. However, you can use any information from the plant scoring system (table 1) which could better inform the participate on why the plant was scored as it was.

Max range when all sections are used: 0 - 100

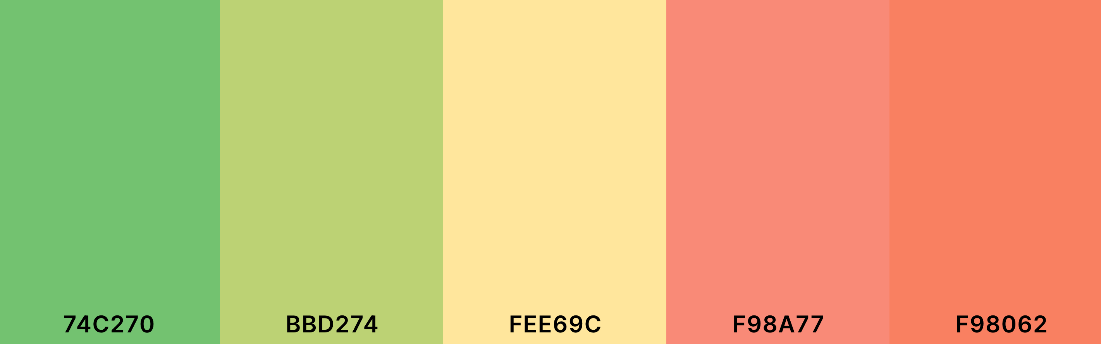
Green: 0 - 35

Light Green: 36 - 51

Yellow: 52 - 67

Light Red: 68 - 83

Red: 84 – 100



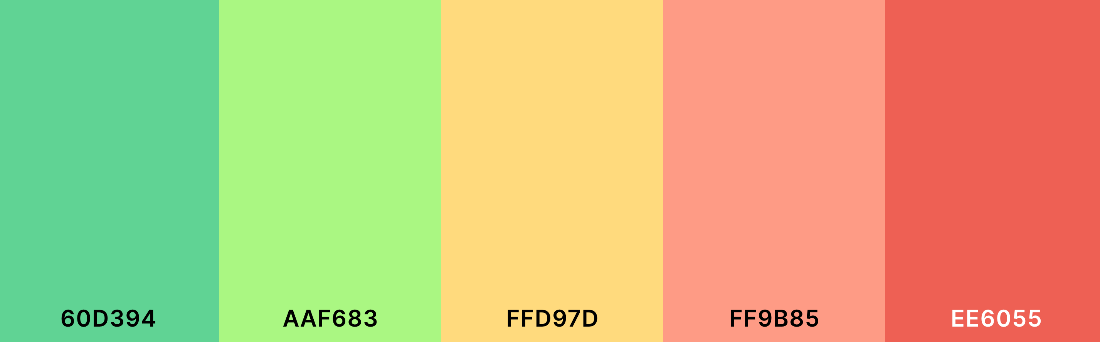


Figure 1: Two options for the colour ranges

[Two designs with descriptions have been produced, one which can be printed on coloured paper (fig 2) and one that can be printed on white paper (fig 4). These designs should be printed on A6. A simple label design has also been produced only containing species name, common name and the plants score.](https://drive.google.com/open?id=1vuZM2UU6pvKCvRQlwOoB-LIEvM4mU_cL)

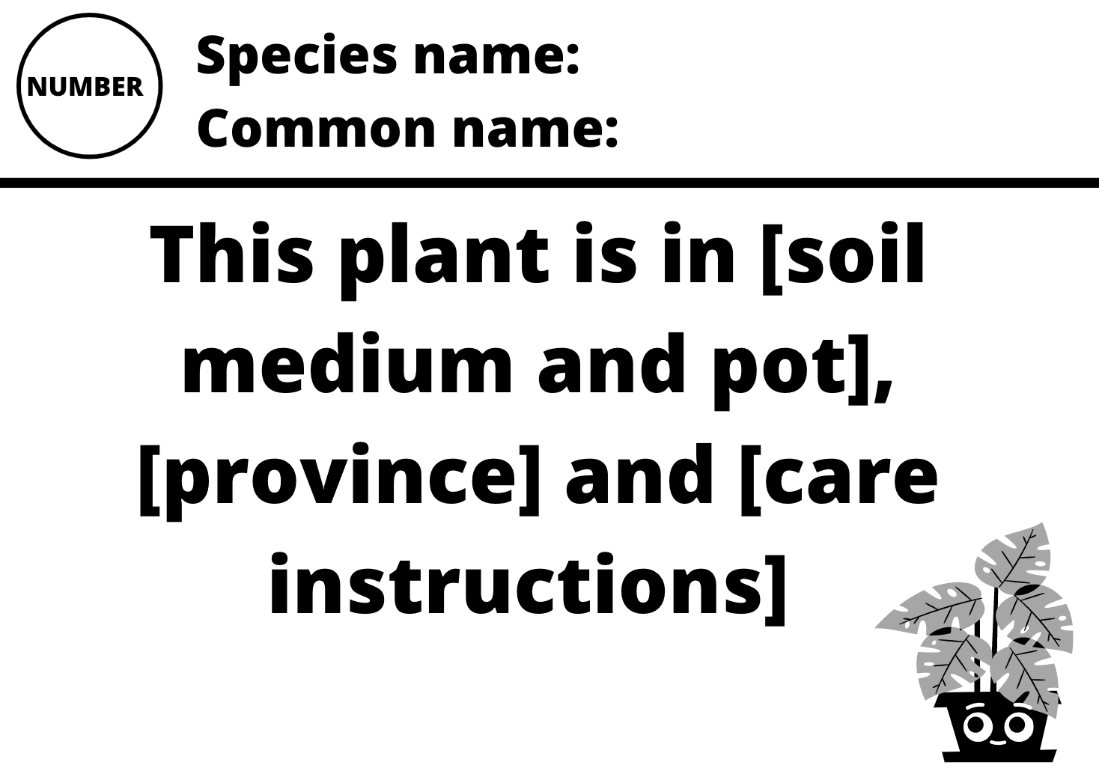


Figure 2: Template for the label (design 1)

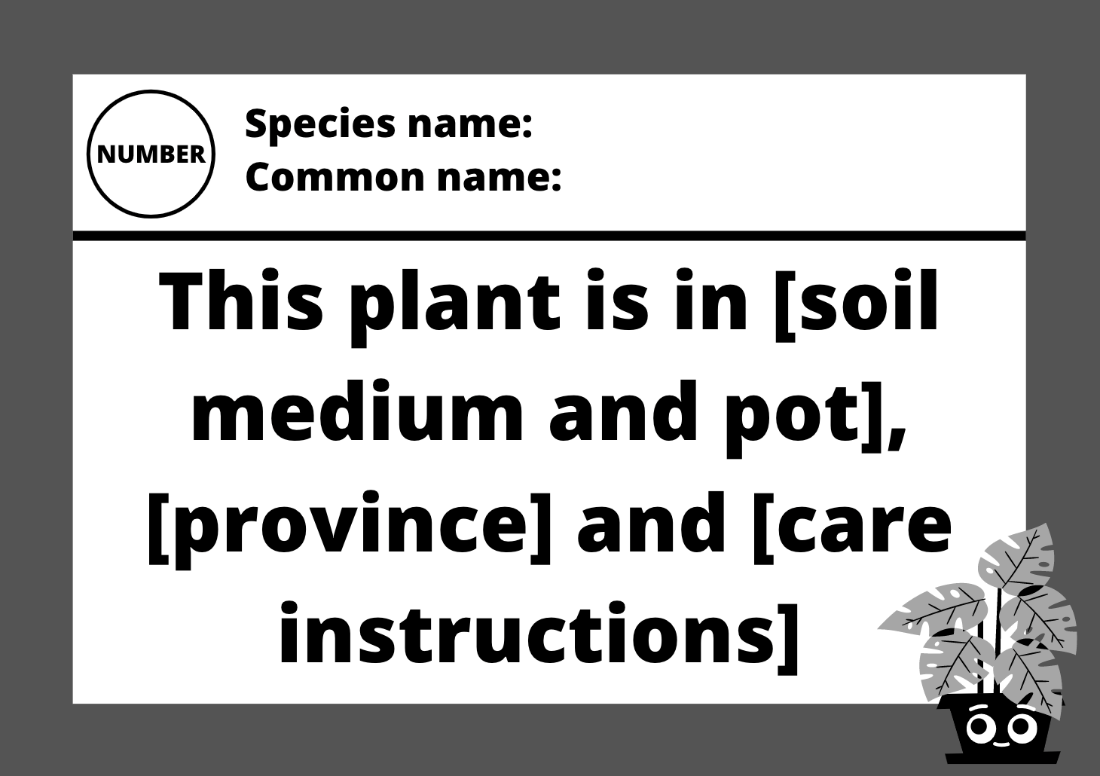


Figure 3: Template for the label (design 2)