**Nursery Accreditation Scheme (NAS) Pre-Assessment Checklist**

|  |  |
| --- | --- |
| **Name of Nursery:** |  |
| **Address of Nursery:** |  |
| **Contact person:** |  |
| **Contact No.:** |  |
| **Email Address:** |  |
| **Lease/ Tenancy Expiry Date:** |  |
| **Assessor Audit Date:** |  |

**SECTION A)** **Please check the relevant boxes**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. **Site Layout & Condition** | | | **Assessor’s Comments & Rating** | |
| **1.1 To be identified on submitted Site Layout plan:** | | |  | |
|  | | Waste disposal areas (e.g. open area/ concrete structure/ bin facility) |  | |
|  | | Water Storage area/ Pond |
|  | | Growing media storage areas |
|  | | Planting areas (Potting, Propagation & Holding areas) |
|  | | Plant quarantine area |
|  | | Chemical and fertilizer storage areas |
|  | | Office and staff training rooms |
|  | | Staff areas (Resting and Refreshment areas) |
|  | | Retail areas (Including wholesale & point of sale areas) |
|  | | Receiving & dispatch areas (i.e. loading & unloading area) |
|  | | Parking areas (with road access) |
|  | | Other areas associated with nursery activities (e.g. Worker’s quarters) Specify |
| * 1. **Overall Site Condition, Safety and Cleanliness** | | |  | |
|  | Site is fenced up. | |  | |
|  | Site is tidy and clean. | |
|  | Footpath free of algae and properly maintained | |
|  | All structures are structurally sound and areas are in good repair | |
| **1.3 Layout Planning of Infrastructure/Storage Areas** | | |  | |
|  | Enables efficient movement from area to area | |  | |
|  | Public areas have good access and signage | |
| **1.4 Potting Media / Growing Media Storage Areas** | | |  | |
|  | Potting media areas are properly covered under a permanent roof structure | |  | |
|  | Growing media areas, compost-mix are properly covered under a shed and /or canvas | |  | |
| **1.5 Planting Areas** | | |  | |
| **Potting &Propagation areas** | | |  | |
|  | Areas are spacious, clean, well-ventilated and covered under a permanent roof structure. | |
|  | Work tables & benches for staff for potting activities | |
|  | Trolleys are available for moving plants | |
| **Holding Areas** | | |  | |
|  | Areas are located under shade nettings where appropriate | |
|  | Accessibility of loading and unloading areas | |
| **1.6 Plant Quarantine Areas** | | |  | |
|  | Screened & Isolated quarantine areas with restricted access | |  | |
| **1.7 Equipment Storage & Maintenance Areas - Machinery, Tools and Materials** | | |  | |
|  | Well-ventilated storage facilities are provided with sufficient access | |  | |
|  | Instruction manuals and maintenance records are accessible by staff | |
|  | Safety signages are clearly displayed | |
| **1.8 Staff Areas – Briefing, Resting and Refreshment, Offices and Training rooms** | | |  | |
|  | Rooms are tidy, conducive, and functional | |  | |
| **1.9 Waste Disposal Areas** | | |  | |
|  | Areas are isolated from planting areas and are accessible for refuse disposal and collection | |  | |
|  |  | |  | |
| 1. **Production System** | | | |  |
| **2.1 Quality of Plant Stock before Sales** | | | |  |
|  | Not physically damaged and healthy | | |  |
|  | Free of weeds, pests & diseases | | |
| **2.2 Propagation Material** | | | |  |
|  | Mother stock is healthy and properly maintained (ornamental plants) | | |  |
| **2.3 Production Records** | | | |  |
|  | Records track all batches of plants through the production system / sales records | | |  |
| **2.4 Labelling** | | | |  |
|  | Plants and sections in nursery are labelled for identification purposes | | |  |
|  | Plant labelling includes:  Plant Scientific Name  Common Name  Plant Cultural Notes *(e.g. use as groundcover)*  Trademarks/License Names *(if applicable)* | | |
| 1. **Plant Sales & Delivery** | | | |  |
| **3.1 Receiving Area** | | | |  |
|  | Parking area is well located, allows efficient movement, loading & unloading | | |  |
|  | Parking area is well maintained | | |  |
|  |  | | |  |
| 1. **Fertiliser Application, Pest & Disease Control** | | | |  |
| **4.1 Staff Training & Safety** | | | |  |
|  | At least one member of staff is able to identify pests & diseases | | |  |
|  | Trained staff have obtained AVA’s Pesticide Operator’s Certificate, trained in pesticide and fertiliser application | | |  |
|  | PPE is well maintained and in working order | | |  |
|  | **Materials Safety Data Sheets (MSDS)** are provided  *Please list any other Pest, Weeds & Disease control courses attended & attained by your staff if have*  Click here to enter text | | |  |
| **4.2 Chemical and Fertilizer Storage Areas** | | | |  |
|  | Chemicals are stored in storeroom under lock & key | | |  |
|  | Proper approval letters, Material Safety Data Sheet (MSDS), and relevant safety signages are displayed | | |  |
|  | Chemicals are stored properly and storage area is well-ventilated | | |  |
|  | Secondary Containment of chemicals to minimise spread of leakages | | |  |
| 1. **Weed Management** | | | |  |
| **5.1 Staff Training & Safety** | | | |  |
|  | Staff are trained in weed identification and removal techniques | | |  |
|  | Operators are trained in chemical weed control | | |  |
|  | MSDS are provided for Herbicides | | |  |
| 1. **Water Management** | | | |  |
| **6.1 Condition of Water Storage Area** | | | |  |
|  | Properly Maintained, amount of suspended silt is acceptable | | |  |
| **6.2 Water Treatment** | | | |  |
|  | Sediments are filtered (e.g. using swales, filters, sediment trap etc.) | | |  |
|  | Water system is regularly treated and tested prior application to plants | | |  |
| **6.3 Irrigation System** | | | |  |
|  | Irrigation system is well maintained (every 6 months) and operational | | |  |
|  | A Contingency plan is in place should the regular watering system fail | | |  |
| **6.4 Drainage System** | | | |  |
|  | No major ponding or puddling after rain, watering and irrigation | | |  |
|  | Water recycling: Surface runoff water is channelled into a retention pond for re-use | | |  |
|  | Methods are in place to control the amount of water overflowing into public drains | | |  |
| 1. **ONLY FOR RETAIL NURSERIES – Retail Management** | | | |  |
| **7.1 Retail Area & Point of Sale Area** | | | |  |
|  | Proper signage and labellings are displayed | | |  |
|  | Allows ease of movement for customers | | |  |
| **7.2 Retail facilities and layout** | | | |  |
|  | Retail space is aesthetically pleasing and organised layout | | |  |
|  | Washrooms are well-maintained | | |  |
|  | Trolleys are provided for customers | | |  |
| **7.3 Quality of Plant Stocks** | | | |  |
|  | Not physically damaged and healthy | | |  |
|  | Free of weeds, pests & diseases | | |  |
| **7.4 Retail Staff** | | | |  |
|  | Staff are welcoming, friendly and knowledgeable | | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. **Business Management** | | | **Assessor’s Comments & Rating** |
|  | **Target**  **(3 years from now)** | **Actual**  **(based on latest FY)** |  |
| **9.1 Financial Planning** |  |  |  |
| Total Revenue |  |  |  |
| Revenue per Worker |  |  |  |
| Revenue per hectare |  |  |  |
| Value-add per worker per yr |  |  |  |
| Profit |  |  |  |
| Value of largest project |  |  |  |
| Notable clients |  |  |  |
| **9.2 Human Resource** |  |  |  |
| Number of Staff |  |  |  |
| Total Local : Total Foreign worker ratio employed in Company |  |  |  |
| **9.3 Innovation, R&D** |  |  |  |
| Current Innovative techniques |  |  |  |
| Future Innovative techniques/Improvements |  |  |  |
|  | | | |
| Upgrading Works, Construction, Renovations |  |  |  |
| Investments in nursery operations  *(e.g. new machineries, new buildings, new IT system etc)* |  |  |  |

**SECTION B) Please fill in the following information:**

1. **Nursery Activities**

|  |  |  |
| --- | --- | --- |
| **Nursery Activities** | **% of Nursery Space** | **Area (ha)** |
| **Production**  **(potting, media storage, propagation)** | % | ha |
| **Wholesale** | % | ha |
| **Holding** | % | ha |
| **Retail** | % | ha |
| **Non – Nursery Area**  **(e.g. roads, pond, office, workers quarters, carpark)** | % | ha |
| **Total Area** | **100%** | **ha** |

1. **Nursery Staff only**

|  |  |  |
| --- | --- | --- |
| **Nursery Staff**  \**There may be replicates for staff, but overall the first row should indicate the total nursery staff* | **No. of**  **Local staff** | **No. of**  **Foreign staff** |
| **Estimated Full Time (EFT) Total Nursery Staff** | Total staff | Total staff |
| EFT Senior Management Nursery Staff |  |  |
| EFT Office Nursery Staff |  |  |
| EFT Operational Nursery Staff |  |  |
| Total Staff with relevant expertise such as WSQ Trained, Non-WSQ Trained such as Landscape Certificate, Horticultural Diploma, Certified Practising Horticulturist (CPH), Landscape related degree etc |  |  |

1. **Source Country for Plant Supply**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Plants** | **Growing Media** | **Remarks** |
|  |  | **% Quantity** | **% Quantity** | (e.g. note down any instances of infestations)  Click here to enter text |
| **Production** | **Singapore** | % | % |
| **Imported / Purchased** | **Singapore** | % | % |
| **Malaysia** | % | % |
| **Thailand** | % | % |
| **Indonesia** | % | % |
| **China** | % | % |
| **Other:** Click here to specify | % | % |
| **Total** | **100%** | **100%** |

1. **Import**

**Do you own and/or have shares in an overseas nursery?**

|  |  |
| --- | --- |
|  | Yes  No |

**If yes, please indicate the percentage of plant stocks imported from your overseas nursery subsidiary and/or entity.**

|  |  |
| --- | --- |
|  | Less than 20%  Between 20% - 50%  More than 50% |

1. **Supplier Source (Top 3)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Supplier** | **Country** | **% Quantity** |
| **Plants** | 1. |  | % |
| 2. |  | % |
| 3. |  | % |
| **Compost** | 1. |  | % |
| 2. |  | % |
| 3. |  | % |
| **Fertilizer** | 1. |  | % |
| 2. |  | % |
| 3. |  | % |

1. **Export**

**Do you export plants and / or orchids to overseas?**

|  |  |
| --- | --- |
|  | Yes  No |

**If yes, please indicate the percentage of the stock exported throughout the year.**

|  |  |
| --- | --- |
|  | Less than 20%  Between 20% - 50%  More than 50% |

1. **Plant Propagation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Growing Media Mix for Propagation** | |  | **Propagated Plant Types** | |
| **Component** | **% of Total Component** |  | **Plant Type** | **% of Total Propagated Plants** |
| Soil | % |  | Trees | % |
| Burnt Clay | % |  | Shrubs | % |
| Expanded Clay | % |  | Ferns | % |
| Sand | % |  | Indoor Plants | % |
| Coco Peat | % |  | Hydroculture plants | % |
| Peat | % |  | Aquatic plants | % |
| Lignin Peat | % |  | Orchids | % |
| Vermiculite | % |  | Others 1: Specify | % |
| Pumice | % |  | Others 2: Specify | % |
| Perlite | % |  | Others 3: Specify | % |
| Rice Hills | % |  | **Total** | **100%** |
| Bark | % |
| Polystyrene | % |
| Compost | % |
| Charcoal | % |
| Sphagnum moss | % |
| Other 1: Specify | % |
| Other 2: Specify | % |
| **Total** | **100%** |

1. **Fertilizer Management**

Please list down the three most commonly used fertilizers in your nursery.

|  |  |  |  |
| --- | --- | --- | --- |
| **Most commonly used Fertilisers** | | | |
| **Synthetic Fertiliser** | | | |
| **Item** | **Fertilizer 1** | **Fertilizer 2** | **Fertilizer 3** |
| **Fertilizer Product Name** |  |  |  |
| **N:P:K** |  |  |  |
| **Application Method**  ***(hand, liquid, fertigation etc)*** |  |  |  |
| **General Frequency of Application** | weeks | weeks | weeks |
| **Organic Fertiliser** | | | |
| **Item** | **Fertilizer 1** | **Fertilizer 2** | **Fertilizer 3** |
| **Fertilizer Product Name** |  |  |  |
| **N:P:K** |  |  |  |
| **Application Method**  ***(hand, liquid, fertigation etc)*** |  |  |  |
| **General Frequency of Application** | weeks | weeks | weeks |

1. **Pest & Disease Management**

Please list down the two most commonly used Pest & Disease Chemicals used in your nursery.

|  |  |  |  |
| --- | --- | --- | --- |
| **Most commonly used Pest & Disease Chemicals** | | | |
| **Item** | **Pest & Disease Chemical 1** | **Pest & Disease Chemical 2** | **Pest & Disease Chemical 3** |
| **Trade Name** |  |  |  |
| **Chemical Composition** |  |  |  |
| **Application Method** |  |  |  |
| **General Frequency of Application** |  |  |  |

1. **Weed Management**

|  |  |  |  |
| --- | --- | --- | --- |
| **Most commonly used Herbicides** | | | |
| **Item** | **Herbicide Chemical 1** | **Herbicide Chemical 2** | **Herbicide Chemical 3** |
| **Trade Name** |  |  |  |
| **Chemical Composition** |  |  |  |
| **Application Method** |  |  |  |
| **General Frequency of Application** |  |  |  |
|  |

1. **Water Management**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Water Usage and Source** | **Amount** |  | **Water Source** | **Estimated % of Water Supply** |
| **Average Monthly Water Use for Nursery Irrigation** | kilolitres |  | **Water Storage & Harvesting On-Site – Ponds** | % |
|  |  |  | **Water Storage & Harvesting On-Site –**  **Tanks** | % |
| **Storage Capacity** | **Amount** |  | **PUB Water Supply** | % |
| **Area of Water Storage Spaces** | m2 |  | **Water Trucked to Site** | % |
| **Depth of the Water Pond** | m |  | **Other:** Specify | % |
| **Capacity of Water Storage Spaces** | kilolitres |  | **Total** | **100%** |

|  |  |
| --- | --- |
| **Water Analysis** | **Result** |
| **pH** |  |
| **Salinity (EC)** | uS/L |
| **Nitrogen (N)** | uS/L |
| **Phosphorus (P)** | uS/L |
| **Postassium (K)** | uS/L |

**Documents Checklist** *(For NParks to fill)*

|  |  |  |  |
| --- | --- | --- | --- |
| **1. Import System** | |  | Remarks |
| a. | Orders are documented: Purchase Orders, Delivery Orders |  |  |
| b. | Phytosanitary Certificate, CITES |  |  |
| c. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **2. Production System** | |  | Remarks |
| a. | Production Records |  |  |
| b. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **3. Plant Sales & Delivery** | |  | Remarks |
| a. | Orders are documented: Purchase Orders, Delivery Orders, Export Documents |  |  |
| b. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **4. Growing Media** | |  | Remarks |
| a. | Recent Soil Sample Analysis Reports |  |  |
| b. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **5. Fertilizer Management** | |  | Remarks |
| a. | Fertiliser application procedures and records are documented |  |  |
| b. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **6. Plants & Pest Disease Management** | |  | Remarks |
| a. | Plants & Pests Disease procedures and records are documented |  |  |
| c. | Material Safety Data Sheets of chemicals (MSDS) |  |  |
| d. | Pesticide Operator Certificate |  |  |
| d. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **7. Weed Management** | |  | Remarks |
| a. | Weed management procedures and records are documented |  |  |
| b. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **8. Water Management** | |  | Remarks |
| a. | Water use monitoring program (if applicable) |  |  |
| b. | Recent Water Sample Analysis Test Reports |  |  |
| c. | Others (Specify): |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **9. Business Management** | |  | Remarks |
| a. | Any training materials (Specify):  (Training on Chemical Handling, machinery, safety courses) |  |  |
| b. | Any other certifications (e.g. ISO, Biz safe cert): |  |  |
| c. | Site Layout |  |  |
| d. | Company Organisation Chart |  |  |
| e. | Risk Management System |  |  |
| f. | ACRA Document |  |  |
| g. | Financial Report |  |  |
| d. | Others (Specify): |  |  |