**ANNEXURE D**

**BIOCONTROL RESEARCH, IMPLEMENTATION, AND MASS REARING**

**PROJECT SPECIFICATIONS**

**Project 3: Tropical and Subtropical Habitats**

1. **SCOPE AND EXTENT OF WORK**

**Section 1:   Pre-release studies**

The pre-release studies will include exploration work and quarantine testing in South Africa on new biocontrol agent son target weeds that have been prioritized by the Department based on the 20 twenty weeds identified by Canavan *et al*., 2021. The list is as follows:

1. *Mimosa pigra* – Giant sensitive plant
2. *Cryptostegia grandiflora* – Rubber vine
3. *Araujia sericifera* – Moth catcher
4. *Hedychium gardnerianum* – Kahili ginger lily
5. *Pueraria montana* *var. lobata* – Kudzu vine
6. *Melia azedarach* – Syringa
7. Schinus terebinthifolius – Brazilian pepper tree
8. *Solanum mauritianum* – Bugweed (additional agents needed)

The deliverable in this section will be the progress achieved per plant species in the quarter.

**Section 2: Post-release evaluation**

The post-release evaluation section deals with:

1. quantifying the population impact of the biological control agents released in the past
2. socioeconomic studies and
3. recovery studies.

The following AIS will be the Department’s focus for post-release evaluation based on the available budget allocated.

1. *Parthenium hysterophorus* - Parthenium
2. *Chromolaena odorata* – Triffid weed
3. *Tradescantia fluminensis* – White-flowered wandering jew
4. *Tithonia* spp.
5. *Tecoma stans* – Yellow bells
6. *Lantana camara* - Lantana
7. *Cestrum laevigatum* – Inkberry
8. *Solanum mauritianum* – Bugweed

The deliverable in this section will be progress achieved on points i-iii per quarter.

**Section 3: Mass rearing**

The mass rearing of the agents identified in section 2 over the 5 (five) year period and agents in section 1 as they become available for release.

|  |  |  |  |
| --- | --- | --- | --- |
| **Plant species** | **Estimated no. agents/quarter** | **Total no. agents/year** | **Grand Total** |
| *Parthenium hysterophorus* - Parthenium | 10 000 | 40 000 | 200 000 |
| *Chromolaena odorata* – Triffid weed | 2 000 | 8 000 | 40 000 |
| *Tradescantia fluminensis* – White -flowered wandering jew | 8 000 | 32 00 | 160 000 |
| *Tithonia* spp. | 3 750 | 15 000 | 75 000 |
| *Tecoma stans* – Yellow bells | 2 000 | 8 000 | 40 000 |
| *Lantana camara* - Lantana | 5 000 | 20 000 | 100 000 |
| *Cestrum laevigatum* – Inkberry | 100 | 400 | 2 000 |
| *Sesbania punicea –* Red sesbania | 200 | 800 | 4 000 |
| *Solanum mauritianum –* Bugweed | 200 | 800 | 4 000 |
|  | **Inoculant available per site/quarter** | **Total inoculant available per site/year** | **Grand total** |
| *Parthenium hysterophorus* - Parthenium | 50 | 200 | 1 000 |
| *Lantana camara* - Lantana | 50 | 200 | 1 000 |

The deliverable under this section will be the number of agents reared per species per quarter.

This deliverable needs to be clearly identified and mentioned in the quarterly report.

1. **COMPETENCY AND EXPERTISE REQUIREMENTS**
2. The bidder is required to demonstrate that they have past and/or ongoing experience and competency in the fields of biocontrol, research, mass rearing, or similar.
3. The bidder needs to provide evidence of previous projects successfully completed, including project values, and track records of deliverables achieved.
4. The bidder is required to provide evidence that their team has the relevant technical experience, in research and mass rearing of biological control agents or similar fields, required to ensure the deliverables of this work.
5. The bidder is required to provide evidence that their core team has the relevant qualifications required to ensure the efficient delivery of the work.
6. **PROJECT MANAGEMENT AND REPORTING**

The Project Manager shall do the ongoing management of the Service Level Agreement (SLA)/Memorandum of Agreement (MOA).

The appointed service provider shall submit four (4) quarterly reports per year for each of the three (3) EP deliverables as follows; 1. Pre-screening studies, 2. Post-release evaluation and, 3. Mass rearing. Therefore, twelve (12) quarterly reports in total per year will be required.