ABSTRACT

Horticulture – Tamil Nadu Horticulture Development Agency (TANHODA) – Creation of Bee Park at Javvadhu Hills of Jamunamarathur in Thiruvannamalai District at an outlay of Rs.100.00 Lakh – Sanctioned - Orders – Issued.

Agriculture (H2) Department

G.O.(Ms)No. 156

Dated: 24.07.2020

சார்வரி வருடம், ஆடி மாதம் 9
திருவள்ளுவர் ஆண்டு 2051

Read :-

1. Announcement made by the Hon'ble Minister for Agriculture on the floor of the Assembly on 24.03.2020.
2. From the Managing Director, Tamil Nadu Horticulture Development Agency, Letter No.FPM1/2680/19, dated 02.06.2020.

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ORDER:-

During the Demand for Agriculture Department on 24.03.2020, among others the Hon'ble Minister for Agriculture made an Announcement on the floor of Legislative Assembly that **"திருவண்ணாமலை மாவட்டம் ஜவ்வாது மலைப்பகுதியில் உள்ள பழங்குடியின மக்களின் வாழ்வாதாரத்தை மேம்படுத்தும் வகையில், 2020–2021 ஆம் ஆண்டில் ஜவ்வாது மலையில் ஒரு கோடி ரூபாய் செலவில் தேனீப் பூங்கா உருவாக்கப்படும்''.**

2. In the letter second read above, the Managing Director, Tamil Nadu Horticulture Development Agency (TANHODA) has stated that in India, beekeeping is mostly practiced as a full-time occupation and as an engrossing hobby to produce handsome income and table honey. Bee-keeping is considered a labour-intensive industry which requires little capital and is extremely easy to establish.

Benefits of bee keeping:

There are four main advantages of bee-keeping:

- Provides honey- a valuable nutritional food.
- Provides bees wax- which has many uses in industry.
- Honey bees are excellent pollinating agents, thus increasing agricultural yields.

(P.T.O.)

- Honey Bee's venom contains a mixture of proteins which can potentially be used as a prophylactic to treating HIV Virus which cures AIDS.

Bee species available in India:

The four common species of honey bee found native in India are as follows:-

1. Apis cerana indica (Indian hive bee or Asiatic or Eastern Honey Bee)
2. Apis dorsata,(Rock Bee or Giant Bee)
3. Apis florea(Little Bee)
4. Tetragonula iridipennis (Dammar bee or Stingless bee)

The exotic species which is found popular in India is

5. Apis mellifera (European honey bee or western bee)

Out of these, Apis ceranaindica and Apis mellifera are best suited for Tamil Nadu apiculture.

Need for Establishment of Bee Park in Tamil Nadu:

Beekeeping is an age-old tradition in India but it is considered a no-investment profit giving venture in most areas. Of late, it has been recognised that it has the potential to develop as a prime agri-horticultural and forest-based industry. Honey production is a lucrative business and it generates employment. Kannyakumari District in Tamil Nadu is a pioneer in honey production and the beekeepers depend solely on the flow season for improving their economic condition.

Forest honey, mostly from rock bee hives, is usually collected by tribals in forests. There are multi-floral and many types of uni-floral honey. Hence, to encourage the farmers by demonstrating the bee keeping activities and to increase their income by producing different types of honey, bee park may be established in the hill regions where tribal people depend mainly on agriculture and allied activities.

Objectives of Establishment of Bee park:

- To ensure Honey bee populations to coincide with the major nectar flows.
- To maximize the collection of nectar or honey production.
- To provide Pollination services for local food crops.
- Raising honey bee livestock for sale to others and farmers.
- To produce Honey and other honey substances including Bee pollen, propolis and royal jelly.
- To create employment opportunities for the rural and tribal people around the area.

4. The Managing Director, Tamil Nadu Horticulture Development Agency(TANHODA), has proposed to be established the Bee Park at Melsilambadi village in Jamunamarathur Block of Javadhu Hills in Tiruvannamalai District in a total area of 7 Hectares, since 90% of the people are tribals in Jawadhu Hills.

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Selection of honey bees:

The honey bees for the apiculture must have,

1. High honey yielding capacity
2. Must be able to form the hive anywhere
3. Worker bees must be smart and energetic.
4. Must be able to protect themselves from the enemies.
5. Must possess colonial habit.

Hence, Honey Bee species like Apiscerana indica, Apis mellifera and Tetragonula iridipennis which is best suited for Tamil Nadu conditions will be reared in the park.

Floral Garden Establishment:

Beekeeping entirely depends on the types of flowering plants available in any given area. Pollen of various plants representing potential source of nectar and pollen for the honeybees is an important pre-requisite for the developing apiary.

Rubber, Jamun, Arjuna, Neem, Litchi, Palmyrah Palm, Eucalyptus, Lagerstroemias, Tamarind, Cashew Tree, Tun, Karanj, False Acacia, wild shrubs, crops of different varieties of mustards, Sesame, Niger, Sunflower, Clover, Khesari, Coriander, Orchard trees including different types of Citrus, Apple, Cherry and other temperate fruit trees, coconut and Coffee plantations are some important sources of pollen and nectar from which bees were more benefitted.

Hence, it is proposed to establish flower beds, floral Gardens and Orchards with crops like Arecanut, Fruit crops, Flower crops like Quisqualis, Hibiscus, Nanthiavattai, Ixora etc., all along the Bee Park area to provide plenty of nectar and pollen in all seasons round the year.

Bee Nursery Establishment:

Bee Nursery means rearing healthy and disease-free bee colonies with prolific queen of desired characters by using modern bee breeding technologies. The modern bee breeding technologies include queen rearing and bee breeding by selecting desired qualitative and quantitative characters of mother colony. These bees can be multiplied and supplied to the trained farmers.

Honey Processing Unit and Testing Lab:

Honey processing involves the removal of wax and any other foreign materials from honey. Different types of Honey Processing are available as follows:-

1. Honey extractors- tangential or radial or Centrifugal.
2. Bulk Processing.
3. Simple Straining Method.
4. Water Bath Method.
5. Pressing Method.

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Among the above methods, Centrifugal method using Honey extractors is commonly used for honey extraction. Hence, Honey processing unit and testing lab will be established in the park with the required machineries.

Honey Blending:

Honey from different sources will have different characteristics. In order to bring uniformity, different honeys have to be blended. This involves mixing different types of honey during processing, so that the final product becomes homogenous and have the same physical and chemical properties.

Hence, a honey blending unit with the machineries required will also be set up in this park.

Honey Bee products:

The following are the products obtained from bee keeping and their uses.

1. **Honey**- Honey is the complex substance made when bees ingest nectar, process it, and store the substance into honey combs. The average honey yield per year per hive are as follows:-

Bee Kind	Honey yield (Kgs / hive / year)
Apis cerana indica	6
Apis mellifera	25
Tetragonula iridipennis	0.1

2. **Beeswax**- Worker bees of a certain age secrete beeswax from a series of exocrine glands on their abdomens. They use the wax to form the walls and caps of the comb.
3. **Bee bread**- Worker Bees collect pollen in their pollen baskets and carry it back to the hive.
4. **Bee brood**- Bee brood are the eggs, larvae or pupae of honey bees – is nutritious and seen as a delicacy in many countries.
5. **Propolis**- Propolis is a resinous mixture collected by honey bees from tree buds, sap flows or other botanical sources, which is used as a sealant for unwanted open spaces in the hive.
6. **Royal jelly**- Royal jelly is a honey bee secretion used to nourish the larvae.

The products and by-products of bee keeping will be produced in the Bee Park and will be sold in the Tamil Nadu Horticulture Development Agency (TANHODA) Outlets.

(P.T.O.)

Abstract of the cost estimate

Sl.No	Particulars	Amount (Rs. In Lakh)
1.	Establishment of Floral Garden	12.20
2.	Establishment of Bee Nursery	10.00
3.	Establishment of Honey Processing unit and Testing Lab	35.00
4.	Non-plant components &Infrastructure	35.00
5.	Skilled Man power for apiary	4.80
6.	Registration and Other Charges	3.00
	Total	**100.00**

5. The Managing Director, Tamil Nadu Horticulture Development Agency (TANHODA), has requested the Government to create the Bee Park at Javvadhu Hills of Jamunamarathur in Thiruvanamalai District at an outlay of Rs.100.00 lakh by utilizing Farm Receipt Account Fund of Tamil Nadu Horticulture Development Agency (TANHODA).

6. The Government after careful examination of the proposal of the Managing Director, Tamil Nadu Horticulture Development Agency (TANHODA) sanction an amount of Rs.100.00 lakh for "Creation of Bee Park at Javvadhu Hills of Jamunamarathur in Thiruvanamalai District" by utilizing Farm Receipt Account Fund of Tamil Nadu Horticulture Development Agency (TANHODA) and order accordings.

7. This order issues with the concurrence of Finance Department vide its U.O.No. 19565/Fin./Agri/2020, dated 10.06.2020.

(BY ORDER OF THE GOVERNOR)

GAGANDEEP SINGH BEDI
AGRICULTURAL PRODUCTION COMMISSIONER
AND PRINCIPAL SECRETARY TO GOVERNMENT

To
The Managing Director,
Tamil Nadu Horticulture Development Agency, Chennai-5.
The Principal Accountant General(G&SSA) (E&RSA)/ AAD/FSA,Cell/ Audit-I/II),
No. 361, Anna Salai, Teynampet, Chennai -18.

(P.T.O.)

The Residential Audit Officer,
O/o. Principal Accountant General (General and Social Sector Audit),
Tamil Nadu Secretariat, Chennai-9.
The Pay and Accounts Officer (East) Chennai-8.

Copy to :
The Senior Personal Assistant to Hon'ble Minister for Agriculture, Chennai-9.
The Finance (Agriculture /BGI/BGII) Department, Chennai-9.
The Senior Private Secretary to Agricultural Production Commissioner
and Principal Secretary to Government, Agriculture Department, Chennai-9.
The Agriculture (OPIII) Department, Secretariat, Chennai-9.
The Assistant Programmer, Agriculture Department, Chennai – 9.
Connected File No.8160/H2/2020.
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// FORWARDED BY ORDER //

P. Santhi
25-7-20

SECTION OFFICER

AFAO
25.07.20