Report on the Impact of Asian Agri–History Foundation (AAHF) in Popularizing *Vrikshayurveda* in Kerala, with Special Emphasis to Kannur District, Kerala, India

C. V. Jidesh

Mobile Soil Testing Laboratory – Kannur, Civil Station, Kannur - 670002, Kerala, India; cvjidesh@gmail.com

1. Introduction

The author was fortunate to receive the knowledge of Vrikshayurveda from Late Dr. YL Nene (Chairman Emeritus, AAHF) during a National workshop on Vrikshayurveda organised by the State Planning Board, Kerala in September 2015. The hands-on training for preparation of Kunapajala, mentioned in Vrikshayurveda, was given by the current Chairman of AAHF Dr. SL Choudhary and Mr. Vijay Singh Parmer during the second day of the workshop. Dr. SL Choudhary also provided several publications by AAHF. After the workshop, the first field trial in rice crop using herbal Kunapajala and cow urine based bio-pesticide was carried out near Amakkavu in Nagalassery Panchayath of Palakkad District by Mr. Krishna Kumar, then Agricultural Officer of Nagalassery. The rice cultivar "Uma" was marketed as Vrikshayurveda rice, released by Mr. VT Balram, MLA, Kerala, and sold @ Rs. 80/- per kg in January 2016.

Similarly, field trials were carried out in Vegetables in 70 ha in Chal, the Safe to Eat

Vegetable production zone of Azhikode Panchayat of Kannur District (during this period the author was Agricultural Officer of Azhikode Panchayat). Herbal Kunapjala and cow urine based bio-pesticide were applied to vegetable crops mainly Cucumber, Cowpea, Brinjal, Amaranthus, Bitter gourd, Snake gourd, Lady's finger (bhindi), Watermelon, Ash gourd, Pumpkin, etc. during December 2015 onwards. Farmers realised the effect of these concoctions in enhancing vegetative growth as well as quality produce. Foliar application of herbal Kunapajala also resulted in reduced incidence of sucking pests like black aphids in cowpea; and pumpkin beetle in cucumber and pumpkin. Now Farmers of this area are extensively using herbal Kunapajala, and cow urine based biopesticide concoction for mitigating the effect of drought.

During June 2016, the author was transferred to Kannur and has been popularising *Kunapajala* preparation in the 89 Panchayats of Kannur District, and till March 2018 more than 130 trainings in Kannur, Kasaragod, Kozhikode, Kollam, and Trivandrum Districts were organized.

The popularisation of *Vrikshayurveda* in Kannur District was done by organizing trainings at the Regional Agricultural Technology Training Centre (RATTC) in a phased manner. The participants were Agricultural Officers, Agriculture Assistants, Block Technology Managers, and Field Assistants under the Agricultural Technology Management Agency (ATMA) & Lead Farmer-Centered Extension and Advisory Service (LEADS) program.

The training program was followed by Blocklevel hands-on training organised by the Assistant Directors of various Blocks of Kannur District. There were 100 to 150 farmers participants in each training. Similar training to farmers was also imparted through RATTC Kannur. Most of the farmers who attended the two-day training programs are now providing training to other farmers of their Panchayats and in other areas as well. These activities were also clubbed with ongoing Agriculture Department Schemes, such as Vegetable Development Scheme, Crop Health Management Scheme, Parmparakatha Krishi Vikas Yojana (PKVY), ATMA field demonstrations, LEADS field demonstrations, etc.

Thus the *Vrikshayurveda* movement which was initiated in 2015 among farmers of Azhikode has taken momentum very fast among farmers of other 89 Panchayats of Kannur District in the last three years. Now we have many farmer trainers for popularising *Vrikshayurveda* in Kannur, such as Mr. Shaji of Kottiyoor, Mr. Prabhakaran of Pariyaram, Mr. Balakrishnan of Mayyil, and Mr. KT Sreedharan Namboothiri of Cheruthazham.

2. Success Stories of Farmers of Kannur

2.1 Ms. CK Sindhu of Chelora Panchayat

A field trial on effect of herbal Kunapjala in Jasmine was conducted during 2017. A basal application of 2L per plant, followed by foliar application @ 200ml/L of water at fortnightly intervals were applied. Soil acidity was corrected with lime application @ 2kg/cent (40 square meter area or 500 kg/ ha), before the start of the study. After three months of application, the farmer indicated that the floral buds were formed profusely, and aroma, appearance and shelf life of buds increased (as ascertained by Mr. Dineshan, floral merchant of Kannur floral market). Due to increase in number of floral buds her daily income increased by Rs. 500/- (additional income). Her success story was aired by Club F M and Mathrubhoomi News Channels. Seeing this news one farmer from Sreekrishnapuram of Palakkad District and another farmer from Manjeshwaram of Kasaragod District contacted the author and visited Ms Sindhu's field and adopted the use of these herbal Kunapajala in floriculture.

2.2 Mr. Shaji and Mr. Johny of Ambayathode, Kottiyoor Panchayath

Mr. Shaji and Mr. Johny attended the District level training at Kannur and also Block level training at Peravoor Block. As part of ATMA Capacity building program, Peravoor Asst. Director of Agriculture arranged a training program for farmers organised by Mr. Shaji and Mr. Johny during 2017. Around 55 farmers participated and prepared herbal *Kunapjala* and cow urine based bio-pesticide. These were applied in

vegetable plot of one acre under open precision farming. Herbal Kunapjala was applied through fertigation and cow urine based bio-pesticide as foliar application on Cowpea, Bhindi, Chilli, and Tomato. Farmers were convinced about the effect of herbal Kunapjala in improving crop health, higher yield and better quality of the produce. They were also convinced about the effect of cow urine based bio-pesticide in managing caterpillars as well as sucking pests of these crops. After finishing the first barrel they prepared second and third barrel of 100 L each of herbal Kunapjala for application and they also supplied to farmers of other areas. Mr. Shaji is now providing training to farmers of other areas under the author's guidance and helps in popularising Vrikshayurveda practices among farmers. highlight to be deleted.

2.3 Mr. Prabhakaran of Pariyaram Panchayat

Mr. Prabhakaran attended the training at RATTC Karimbam during 2017. At the end of two-day training he promised to popularise Vrikshayurveda at Pariyaram Panchayat. As per his commitment he arranged a training at his residence on 10th December 2017. The author reached around 7.45 am and was surprised to see members of his self help group "Gramika" actively involved in chopping leaves of weeds for preparation of herbal Kunapjala. They prepared herbal Kunapjala and cow urine based bio-pesticide, and a nearby one acre land was brought under vegetable cultivation using the application of herbal Kunapajala and cow urine based bio-pesticide for cowpea, chilli, cucumber, pumpkin, amaranthus, snake gourd, bitter gourd, ridge gourd, watermelon, ash gourd, and

bhindi. They also prepared second barrel of Kunapajala, organised one more training session at Pariyaram during January 2018 and other self-help group members in their panchayat also attended the training program. As part of the training program to the newly recruited Agriculture Officers of Kannur and Kasaragod districts organised by RATTC, the officers were taken to the Gramika Vrikshayurveda demonstration field and Mr. Prabhakaran shared his experience with the Officers. He said that apart from being an organic manure, herbal Kunapjala was very effective in managing black aphids in cowpea and pumpkin beetles in cucumber and pumpkin, and also sucking pests in chilli. Harvesting of the crops was graced by former MLA Mr. CKP Padmanabhan 01 March 2018. Gramika members have constructed a sales counter using thatched coconut leaves adjacent to their field along the National Highway to sell the produce at a premium price.

2.4 Success Story of Mayyil Rice Farmers, Kannur District

Training on preparation of herbal *Kunapjala*, and cow-urine based bio-pesticide and concoction for drought tolerance was given to rice farmers of Mayyil during December 2017. Farmers of two Padashekharams (Rice farmers' groups) viz., Mullakkodi Padashekharam and Keezhalam Padashekharam decided to apply these concoctions in 100 acres of paddy under local cultivar "Vellarian". It was also decided to release rice as Vedic rice of Mayyil. Two training programs were conducted, one for Mullakodi farmers and the other for Keezhalam farmers. Twenty barrels (2000 L) of herbal *Kunapjala* were prepared by them and dosage fixed was @ 100ml/L of water. Application was made as foliar spray during active tillering stage and at flowering. Cow urine based bio-pesticide was used to manage pests and in certain areas concoction applied @10% for protecting crop from drought. Farmers are now convinced and have adopted all these traditional wisdom and practices in a big way. Vedic rice of Mayyil was launched on 9 March 2018 during the visit of Dr. SL Choudhary, Chairman of AAHF to Kannur. This Vedic rice will be marketed by Mayyil Farmers' Producer Company at a premium price of Rs. 150/kg. They have a mobile sales facility which was flagged off by the Agriculture Minister of Kerala on 23 February 2018. The Agriculture Officer of Mayyil Mr. Radhakrishnan and the farmers are behind the success of this entire process. Mr. Radhakrishnan has received best



Second day of Workshop on 19/09/2015 at Trivandrum (Handson by Dr. S L Choudhary)



Vedic Jasmine of Ms. Sindhu of Chelora

Agricultural Officer award for Extension for Kannur District during 2017-18.

With the formation of AAHF Kerala Chapter activities for promotion of *Vrikshayurveda* and other traditional wisdom can be intensified in Kerala state extending to all the Panchayats for the benefit of farming community.

3. Acknowledgement

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Azhikode Panchayath, Chal, 2016. Herbal Kunapjala preparation



Mr. Shaji and Mr. Johny of Kottiyoor



Launching of Vedic Rice of Mayyil by AAHF Chairman Dr. S L Choudhary



Mr. Prabhakaran with Vedic vegetables