# **UADF NEWSLetter**

# **Uva Agriculture Development Forum**

ISSN 2513-2342



EISSN 2513-2350

Faculty of Animal Science and Export Agriculture, Uva Wellassa University of Sri LankaPassara Road, Badulla, 90 000, Sri LankaWeb: www.uwu.ac.lk

Volume 1

Issue 1 June 2015 Email: uadf@uwu.ac.lk



## Establishment of Uva Agriculture Development Forum (UADF)

Faculty of Animal Science and Export Agriculture of Uva Wellassa University established a collaborative structure named, 'Uva Agriculture Development Forum' (UADF), with the participation of academicians and other state & non-state sector stakeholders who actively involved in the developmental activities related to agriculture in Uva Province. The main aim of this forum is to share the knowledge, experience and resources owned by each stakeholder among the above individuals so as to promote agriculture in the area. The inaugural session was held at Uva Wellassa University on March 03, 2015 and attended by nearly fifty participants representing different disciplines of agriculture. Thereafter, a special discussion was held with the invited professionals to establish an Executive Committee, which will be the future governing body of the forum. In the inauguration, Dr. Sepalika Jayamanne, Dean, Faculty of Animal Science and Export Agriculture, welcomed the gathering and Dr. Saman Herath, the Co-ordinator of the Organizing Committee, presented the objectives to have such a forum having considered the present need. The Organizing Committee was also represented by Dr. R.R.M.K.K. Wijesundara, Dr. K.G. Prematilake, and Dr. E.D.N.S. Abeyrathne. It was the responsibility of those Senior Lecturers to organise this event with the participation of above professionals in the given sectors. >>>.....P.2

### **IN THIS ISSUE**

- Aquatic Resources in Uva Region and Future Prospects......P.1
- Farmer Awareness Programme on Safe Handling of Agrochemicals.....P.3
- The Second Executive Committee Meeting of UADF......P.3
- Annual Meeting of Fisheries
   Societies Badulla District
   2015......P.5
- Farmer Awareness Programme
   on Protected Agriculture......P.6
- A workshop on Bio System Technology for A/L Students in Uva Province.....P.6
- Technological Contribution of UWU for Entrepreneurs in Badulla District......P.7

### **EXCLUSIVE**

Aquatic Resources in Uva Region and Future Prospects



Dr. S.C. Jayamanne Bsc (Sri J'pura); PDA (Thailand); MPhil (Sri J'pura); PhD (Scotland)

Dean Faculty of Animal Science and Export Agriculture

Uva is a region blessed with clean water flowing from the hills through numerous streams, which connect at the lower elevations to make various oyas (rivers) such as Badulu Oya, Loggal Oya, Kumbuk Oya, etc. >>>.....P.4

### Establishment of Uva Agriculture Development • Forum (Cont.)



Dr. Gamani Chandrasena, Vice Chancellor of Uva Wellassa University and Mr. Gunadasa Samarasinghe, Secretary to the Ministry of Uva Provincial Agriculture, Irrigation, Inland Fisheries Industries, Land and Tourism made special speeches in the forum. With the Vote of thanks delivered by Dr. Sandun Abeyrathne, the inaugural ceremony was concluded.

Given the need and importance of the UADF, following six objectives were identified to work in future with the collaborative participation and contribution of all possible stakeholders. Importantly, in a future agenda, the forum is supposed to work for the critical issues identified in the agriculture sector of Uva province.

- To identify and link the stakeholders of agriculture sector of Uva province.
- To strengthen the agriculture related activities of Uva province.
- To identify the technology needs and disseminate knowledge among public.
- To share knowledge, skills, experience and resources among stakeholders.

- To initiate policy interventions and make proposals to develop the agriculture in Uva province.
- To develop a database covering all aspects of agriculture and allied disciplines.

During the discussion session, certain participants were appointed as the Executive Officials for the forum. Also, eight different 'Working Committees' namely, Agriculture, Export Agriculture, Tea, Other Plantation Crops, Livestock Production and Health, Fisheries and Aquaculture, Forest, Land and Environment and Agricultural Education were proposed and formulated covering all aspects of agriculture, paying attention to the agriculture sector in Uva province. The working committees will work for the needs and issues identified and to be promoted so that a significant contribution could be made to the provincial economy in future, as a leading sector that shares ~27% of Gross Domestic Production (GDP) currently in the Uva province.

Following office bearers were selected and appointed for the forum unanimously.

- 1. **Chairman** Dr. G. Chandrasena, Vice Chancellor, Uva Wellassa University
- 2. Vice Chairman Mr. G. Samarasinghe, Secretary, Ministry of Uva Province Agriculture, Irrigation, Inland Fisheries Industries, Land and Tourism
- 3. **Secretary** Dr. H.M.S.K. Herath, Senior Lecturer, Faculty of Animal Science and Export Agriculture, Uva Wellassa University
- 4. **Deputy Secretary** Mr. R.M. Nandasiri, Provincial Director of Agriculture, Uva Province
- 5. **Treasurer** Dr. R.R.M.K.K Wijesundera, Senior Lecturer, Faculty of Animal Science and Export Agriculture, Uva Wellassa University





Farmer Awareness Programme on Safe Handling of Agrochemicals

Export Agriculture Department of Uva Wellassa University conducted an awareness programme for the farmers of Badulla district on 'Safe Handling of Agrochemicals' since the way of handling the agrochemicals is not up to the standard methods at present. The first programme was held on March 02 and 03, 2015 at Malapola in Uva Paranagama and Ambewelagama in Kappetipola, respectively, with the support of Department of Agriculture, Uva province. Famers were provided with the knowledge on correct and safe handling of agrochemicals the aid of presentations, with demonstrations and other relevant methods. Mr. A.N.R. Weerawansha, Lecturer, representing Faculty of Animal Science and Export Agriculture conducted the sessions. Uva Wellassa University always takes exceptional care in building of relationships with the outside farming communities and therefore, this is considered to be such an event organized for the rural farmers of the area. The university will engage in similar works in future as well.



The Second Executive Committee Meeting of UADF



The second Executive Committee Meeting of the UADF was held on April 30, 2015 at Uva Wellassa University with the participation of academicians of Uva Wellassa University including the Vice Chancellor, Dr. G. Chandrasena and other number of state and nonstate sector officers. Mr. Nimal Abeysiri, District Secretary, Badulla district was one among them.

During this meeting, special focus was given on collecting information on 'Present Status of Uva Agriculture'. After the general meeting, members of different working committees met and compiled the information about following aspects: current status (facts and figures), problems and current issues, ongoing programmes related to developmental activities and future plans. Finally, each working committee did present all collected information to the gathering and discussed about the contribution that they can make with the mediation of Uva Agriculture Development Forum in future activities to be organised.

### **Aquatic Resources in Uva and Future Prospects**

### (Cont.)

Crystal clear water coming down with the streams get polluted through agricultural fertilizers and pesticides and other anthropogenic activities. In addition to lotic water such as streams and oyas, there are lentic resources that are man-made by the ancient kings and giants. They are available in the province with an extent of 3,400 ha of water area in Badulla district and 13,100 ha water area in Moneragala district. Also, two major reservoirs, 11 medium and 128 small tanks are available in the province. According to a recent study conducted by Uva Wellassa University, fish, crustacean and molluscan resources - both edible & ornamental and ornamental aquatic plants - have been identified from the province. Edible fish species found in reservoirs of the province is given in the Table 1.

### Table 1. Edible fish fauna in inland reservoirs.

Common name	Scientific name	Native/Introduced
Tilapia	Oreochromis mossambicus,	Introduced
	0. niloticus	Introduced
Common Carp	Cyprinus carpio	Introduced
Silver Carp	Hypothalmichthys molitrix	Introduced
Bighead carp	Hypothalmichthys nobilis	Introduced
Mrigal	Cirrhinus mrigala	Introduced
Catla	Catla catla	Introduced
Rohu	Labeo rohita	Introduced
Hiri Kanaya	Labeo dussumieri	Native
Loola	Channa orientalis	Native
Freshwater prawn	Macrobrachium rosenbergii	Native
	M. malcolmsonii	Native
Milkfish	Chanos chanos	Introduced
Sea bass	Lates calcarifer	Native

The ornamental fish species recorded by Uva Wellassa University from the streams in Uva province are given in Table 2 while pictures of some important species are given in Plate 1.

Table 2. Ornamental fish recorded from Loggal Oya, BaduluOya and Menik Ganga.

Upper region (>1000 m elevation)	Mid region (1000 - 500 m)	Lower region (<500 m)
Garra ceylonensis	Garra ceylonensis	Garra ceylonensis
Garra philipsi	Garra philipsi	Garra philipsi
Xiphophorus helleri	Devario malabaricus	Devario malabaricus
	Channa orientalis	Channa orientalis
	Puntius bimaculatus	Puntius bimaculatus
	Schistura notostigma	Tor khudree
		Puntius dorsalis
		Rasbora danicornius

Several ornamental aquatic plants, which have export potential have been found in Uva province.





Plate 1. Some identified fish species

Three *Cryptocoryne* species (Plate 2); *Cryptocoryne wendtii* (brown and green varieties), *Cryptocoryne walkeri* and *Cryptocoryne retrospiralis* (to be confirmed), which are endemic, have been identified by the research team of Uva Wellassa University.

Lagenandra spp. (Plate 3), Ludwigia spp., Ceretopteris spp. and Cyperus spp. are commonly found in all streams in the Uva province. It is also believed that the ancient people have established Cyperus plants in streams so that the root system helps purify water.



Plate 2. Cryptocoryne spp.

However, the fish production in the province is lower compared to the fish production in other provinces. There is a great potential in enhancing the production of fish and crustaceans in reservoirs as well as there is a potential for establishing ornamental fish and plant industry in Uva province. The aquatic resources in the Uva province indicate a potential for many research and also a possibility of initiating a cottage industry to improve the livelihoods of Uva community.



Plate 3. Lagenandra spp.



### Annual Meeting of Fisheries Societies in Badulla District 2015

As a follow up programme of the Uva Agriculture Development Forum, the Annual General Meeting of the Fisheries Societies of Badulla District – 2015 was held on May 12, 2015 at the Cultural Center, Mahiyangana. This was attended by the Uva Wellassa University academic staff along with the Extension Officers of National Aquaculture Development Authority of Sri Lanka (NAQDA). The meeting had been organized to discuss about the issues faced by the fishermen in the district. Secretary of Ministry of Agriculture - Uva Province, Extension Officer - NAQDA, Cooperative Society Officer and representatives of Fisheries Societies of Badulla district also took part in the meeting.

A questionnaire survey was performed with the members of fisheries societies of reservoirs of Badulla district as to identify the problems that they are facing. The issues identified were given below.

### **Issues Identified**

- Lack of coordination of Ulhitiya reservoir as it is divided into three parts
- Changes in attitudes of fishermen (use of illegal fishing methods)
- 3. Extensive algae coverage of the reservoirs
- 4. Problems in fish breeding/feeding
- 5. Illegal fishing activities/Use of banned fishing gears
- 6. Unavailability/Insufficiency of fishing boats
- 7. Insufficient number of forest officers

- 8. Growth of over fishing
- 9. Lack of support from government officers
- 10. Lack of suitable fishing gears nets with 14" mesh
- 11. No proper security system for reservoir activities
- 12. Lack of introduction of fish seeds (Insufficient fish stock in the reservoir)
- 13. High cost of fishing nets
- 14. Lack of knowledge on fishing rules and regulations

# Suggestions from members of the fishing societies

- 1. Introduction of fish seeds/ fingerlings
- 2. Rearing of Tilapia
- 3. Need of proper training on fishing
- 4. Appointing more NAQDA officers for monitoring fishing activities
- 5. Breeding of fresh water prawns
- 6. Control of water flow of the reservoirs for fish rearing activities
- 7. Need of government support to protect/conserve fisheries resources and the reservoirs (Eg. Observation of illegal fishing activities)
- 8. Need of conducting water quality monitoring programmes
- Need of self employment training programmes for women engaged in fishing
- 10. Need of training programmes on fishing
- Organize workshops to change the attitudes of fishermen
- 12. Provision of fish nets with mesh sizes 6", 7", 10" and 14"
- Government support for the development of fisheries industry (supplying of fishing gears, boats etc.)

The Inland Fisheries and Aquaculture committee will attend to the above problems to find possible solutions in the future.

### **Farmer Awareness Program on Protected Agriculture**

Department of Export Agriculture conducted an awareness programme for farmers of the Welimada area on "Protected Agriculture". The programme was held on May 14, 2015 at Divithotawela, Welimada with the support and sponsorship of Export Development Board (EDB) of Sri Lanka. Famers were provided with the knowledge and practical experience on selection of nursery media, soil-less culture and management of pests and diseases of bell pepper, salad cucumber and tomato, which are grown on hydroponics.

The following officers participated in this event representing Divisional Secretariat, Welimada and Export Development Board: Ms. G.A. Ramyalatha, Administrative Officer, Divisional Secretariat, Welimada and Mr. Akila De Zoysa, Assistant Director, Export Development Board, Provincial Office, Uva. Also, the lecturers of Department of Export Agriculture, Ms. H.A.S.L. Jayasinghe, Ms. H.K.S.G. Gunadasa and Mr. A.N.R. Weerawansha took part in this event as resource personnel representing the Uva Wellassa University.



### A workshop on Bio System Technology for A/L Students in Uva Province

Agricultural Education Committee of Uva Agriculture Development Forum conducted a workshop on Bio System Technology for Advanced Level students in Uva province on June 06, 07, 13, and 14, 2015 at Uva Wellassa University with the collaboration of Provincial Department of Education, Uva Province. The main objective of this workshop was to improve the theoretical and practical knowledge of students who are following the newly introduced subject of Bio System Technology under the Technology Stream of G.C.E Advance Level. The workshop was conducted under the guidance of Dr. D.K.D.D. Jayasena, Convener for the Agricultural Education Committee of Uva Agriculture Development Forum. Mr. A.N.R. Weerawansha and Ms. H.A.S.L. Jayasinghe coordinated this four – day workshop serving as committee members of Agricultural Education Committee. >>>.....P.7





### A workshop on Bio System Technology for A/L Students in Uva Province (Cont.)

In the inauguration, Dr. Gamani Chandrasena, Vice Chancellor of Uva Wellassa University, welcomed the gathering and also presented the objectives to have such a workshop having considered the present need of the education sector in the Uva province. Mrs. B.C. Ellewela, Assistant Director of Education (Agriculture), Provincial Department of Education of Uva province, also addressed the gathering and stated that Agricultural Education Committee of Uva Agriculture Development Forum always takes exceptional care in building up relationships with the outside student communities and therefore, this session was considered to be one of such activities that was carried out addressing an important concern needed to be communicated timely.

The students were provided with the theoretical and practical knowledge on packaging material for food products, maturity indices of vegetables and fruits, food adulteration, preparation of hard dough biscuits, sensory evaluation, poultry meat processing, poultry egg production, water quality and purification, dairy production, ornamental aquatic plants and fish culture with aid of demonstrations, presentations and other relevant materials. About 400 students and 20 teachers attended this workshop and it was highly commended by all participants appreciating the aim of sharing the knowledge, experience and resources owned by the academicians among the above students so as to promote education in the area. Dr. D.K.D.D. Jayasena, Dr. E.D.N.S. Abeyrathne, Dr. W.A.J.P. Wijesinghe, Mr. N.P.P. Liyanage, Mrs. A.M.N.L. Abesinghe, Ms. S.M.I.P.G. Bandara, Ms. A.G.A.W. Alakolanga, Ms. M.P.M. Arachchi, Mr. L.L.S.L. Jayasinghe, Mrs. T.H. Ranahewa and Mr. P. Jayasinghe, attended the event as resource personnel from the Faculty of Animal Science and Export Agriculture.

### **Technological Contribution of UWU for Entrepreneurs in Badulla District**

The entrepreneurs who need technological assistance for developing their ventures were called for an awareness programme by the Industrial Development Board (IDB) of Ceylon, Badulla on May 21, 2015 at Hotel Heritage, Badulla. The purpose of this gathering was to provide an inspiration to those investors giving all supportive knowledge in selected areas. Technological potentials had also been identified to be discussed in this forum and IDB had selected Uva Wellassa University as the potential institute for providing such information to the entrepreneurs in this event.

Dr. Saman Herath, Senior Lecturer, Faculty of Animal Science and Export Agriculture, attended the event representing Uva Wellassa University and addressed the gathering under the theme of "Technological Assistance to be provided by Uva Wellassa University and New Technology & Trends". Dr. Herath presented the gathering that the University can assist the entrepreneurs of Badulla district under 17 aspects covering a variety of scopes with the support of all three Faculties.

Seventy five (75) selected entrepreneurs and/or investors have been invited for this special day covering all agriculture, industrial and services sectors. These entrepreneurs are recognised to be still new comers to the sector and therefore, their contribution to the gross domestic production (GDP) is expected to be increased significantly through providing all basic knowledge and skills considering the real need.

### **About Uva Wellassa University**

Uva Wellassa University was established in the year 2005 as an Entrepreneurial University and it is different from the rest of the state universities by the design, which provides Entrepreneurial Education with Essential Skills and Broad General Knowledge for all undergraduates in their core curricula. All lecturers of the University are aimed with three tasks to be progressed in their service, known to be **"Three Pillars of Service"**; **Teaching, Research and Corporate Social Responsibility (CSR)**, where the latter mainly focuses on the development of Uva province.





Our theme provides the necessary emphasis that should pervade the system within to pursue a vision clearly giving us a direction on Value Addition to the National Resource Base. As such, all our degree programmes deliver knowledge and skills required by the employers in industry and commerce for value addition. The university expects to widen the higher education opportunities in future giving priority to the areas that could contribute to the economy of the country.

### How to obtain membership?

Admission to membership of the forum is made as: (a) Ordinary/life members: persons who are actively engaged in agricultural activities or involved in activities related to the advancement of agriculture, in particular, the Uva province; (b) Honorary members: persons who have rendered distinguished service to agriculture; (c) Associate members: persons interested in any Working Committee of the Forum and wish to attend the Annual Session or join in the other activities organised by the forum; (d) Student members: University students interested in Uva agriculture. Ordinary/life members will be enrolled by the Executive Committee having evaluated the requested information whereas the honorary membership will be conferred by the forum on the recommendation of the Executive Committee. Associate and student members will be admitted by the Executive Committee based on applications made.

### **Editorial Board**

Dr. H.M.S.K. Herath Dr. R.R.M.K.K. Wijesundera Dr. (Mrs.) D.C. Mudannayake

### **Editorial Assistance**

Mr. A.N.R. Weerawansha Mr. A.S. Mahaliyana Mr. H.G.I.M. Wijesinghe

### Contact

Secretary Uva Agriculture Development Forum Faculty of Animal Science and Export Agriculture Uva Wellassa University Passara Road, Badulla, 90000 Sri Lanka

Telephone: +94 55 3566522 | Fax: +94 55 2226470 Email: <u>uadf@uwu.ac.lk</u> Copyright © by Uva Wellassa University of Sri Lanka