

VETIVERIM

A Quarterly Newsletter of the Pacific Rim Vetiver Network

Number 8 April 1999

Editorial

The Second International Conference on Vetiver

When the International Conference on “Vetiver – A Miracle Grass” was held in Chiang Rai, Thailand on 4-8 Feb. 1996, no one thought of the continuity of this conference. This was due to the fact that it was organized with a special purpose, i.e. to commemorate the 50th Anniversary Celebration of His Majesty the King’s Accession to the Throne.

During the Conference, the Editor organized an ad hoc meeting among 30 key personnel to discuss the continuity of the International Conference on Vetiver (ICV). Among other things, it was agreed that ICV should be organized every 4 years, and that the second one (ICV-2) should be held in South Africa under the theme “Vetiver and the Environment”. An Interim Committee (IC) of ICV-2 was established, consisting of 11 members who are experts in vetiver and representing major participation countries. As the Chairman of the Organizing Committee of ICV-1, Dr. Sumet Tanivejkul, was requested to be IC Chairman, and on the same ground, the Editor as IC Secretary.

During the past 4 years, we kept contact with the assigned organizer to ensure that necessary arrangements for ICV-2 were made. Unfortunately, several problems were encountered; and at the end of 1998, an official word was released that the assigned host is not ready to organize the ICV-2 in the year 2000.

With the responsibility as the host of ICV-1, and with past experience as its successful organizer, Thailand is in the best position to host ICV-2 as there seems to be no hope to request any other country to do so in such a short notice. With full support from the IC members, it is now definite that ICV-2 will be held on 17-21 Jan. 2000 at Chanthaburi, Phetchaburi, Central Thailand to commemorate the Sixth Cycle (72nd) Birthday Anniversary of His Majesty the King.

With a very short time span before the date of ICV-2, and with prevailing economic crisis, not only in Thailand but also in several other countries in Asia and the whole world, it may be somewhat difficult for the host country to repeat the achievements of ICV-1. Nevertheless, we are determined to try our best. We would like to take this opportunity to invite vetiver enthusiasts to participate in ICV-2 and contribute towards its success.

Summary of the Third Thai National Vetiver Seminar

The Third Seminar on “Development and Promotion of the Utilization of Vetiver Grass Under the Royal Initiative of His Majesty the King” was held on 14-15 January 1999 at Kasetsart University in

Bangkok. It was organized by the Office of the Royal Development Projects Board (RDPB) to commemorate the Sixth Cycle (72nd) Birthday Anniversary of His Majesty the King (which will fall on 5 December of this year). It also aimed at promoting His Majesty's recent initiatives on vetiver and implementation progress of the vetiver project in Thailand. It was attended by approximately 300 participants from 40 agencies. The Opening Ceremony was presided over by H.E. Privy Councilor Chulanope Snidvongs Na Ayuthaya. There were two keynote lectures by Dr. Sumet Tantivejkul, Secretary-General of RDPB and Dr. Ampol Senanarong, a Privy Councilor. There was a panel discussion on "Vetiver: An Amazing Grass" by four vetiver experts. Besides, there were three working groups on: (i) fundamental and applied researches on vetiver; (ii) uses of vetiver for soil and water conservation and other purposes; and (iii) promotion and extension work.

An exhibition was arranged with the cooperation of various agencies whereby poster presentations for 34 topics were displayed. There was also a display of award-winning vetiver handicraft products organized by the Division of Household Industry and Handicraft Development of the Department of Industrial Promotion. Beside the display of the rewarded of the rewarded items, there were also demonstrations of handicraft making form vetiver materials by farmers.

Recommendations

The three workshops have yielded the following recommendations:

- *Fundamental and applied research on vetiver:* The research results presented clearly demonstrated the multipurpose uses of of vetiver. In the future, the direction of the researches should be geared towards incorporating both the fundamental and applied aspects with an emphasis on setting the objectives that would provide benefits for the entire society and enable the effective application by farmers, in terms of soil and water conservation, economic advantages and environmental preservation.
- *Uses of Vetiver for soil and water conservation and other purposes:* Vetiver had been tested to be efficient in reducing the rate of soil erosion, reinforcing and preventing collapse of soil surface on road shoulders, rehabilitation the natural resources and environment as well as benefiting many other purposes. There should be further researches to enhance the effectiveness of vetiver in maintaining soil moisture, and to study about the characteristics of vetiver ecotypes, varieties of intercrops as well as types of soil in each area. As for promoting the uses of vetiver, factors which should be stressed in order to gain acceptance from farmers include simplicity, money and time saving as well as practicality. Since vetiver leaves are in great demand for handicraft making, cultivation of vetiver and study of its culm and leaves, should be further promoted.

- *Promotion and extension work:* The multipurpose uses of vetiver should be clearly and continually promoted through the media as well as through the actual demonstrations set an example and build a good understanding of its advantages among the people. The officials concerned should be well trained in order to be equipped with proper knowledge and understanding, which will be helpful in the extension work. Incentives related with using vetiver leaves to make various handicrafts such as income from sale to support the family should be shown to farmers. Moreover, it is found that since the technique of using dibbling tube for vetiver multiplication promoted a mass production, easy transportation, and a high survival rate, it could be another method to solve the problem of insufficient supply of vetiver planting materials.

Conclusion: The final conclusion was that various agencies should cooperate in a joint effort to establish ‘vetiver villages’ and ‘vetiver doctors’. Two phrases were suggested for use as public relation slogans to promote vetiver growing: “Today, have you planted vetiver yet?” and “Plant vetiver in your mind”.

A Request for Vetiver Slips from Viet Nam *

By way of introduction, the organization we are working with on this project is Hoi Lam Vuon (Gardeners Association), the headquarters office for the province of Nghe An (the province in north-central Viet Nam which has a large territory protruding into central Laos). Hoi Lam Vuon is more commonly known in English as *Vacvina* (*VAC* Viet Nam)[where *VAC* stands for *vuon-ao-chuong* (gardem-pond-cage), meaning of course plant-fish-animal, the traditional Vietnamese implementation of what we call in English “permaculture”]. *Vacvina* is a very large grassroots organization, with branches in every province and in every district of every province (and in most if not all communes of the districts, as well).

We have been working with Mr. Nguyen Hong Son, chairman, Mr. Nguyen Tung Viet, general secretary; and Ms. Ngyen Thi Kim Quy, chief of office. Mr. Son told me that in Nghe An province there are 23,000 members of *Vacvina* – perhaps not enough yet to stop erosion completely in Nghe An – a huge ask – but enough to light a good-sized fire for vetiver! You may have heard that World Bank green book has recently been published in Vietnamese, and it is my my understanding that there is a growing contingent of farmers and others in Nghe An who are very receptive to the message of the book – as I was when I first learned of vetiver in mid-1997! – and over 1,000 copies have been distributed (or are in the process of being distributed) there. Obviously, we hope to distribute tens of thousands of copies and more, across the whole country, in the near future!

With the planting material, we hope you will supply them. *Vacvina* wants to establish a nursery of 0.5 ha to as much as 1 ha for initial multiplication, and to use the remainder to set up a first site of 1-2 ha applying vetiver against erosion on sloping land. Because of the upcoming rainy season, we have set a target of 1 April for the trucks to come to Nong Khai to pick up the shipment you will be preparing for *Vacvina*. We believe that on the order of 150,000 five-tiller slips might be about the right amount – and in terms of the intended projects, that would be the right number. I am sure you will have more accurate information on volume and weight, and we may need to adjust the kind and/or number of trucks accordingly. Of course we may also need to adjust based on what you can supply us at this time! *Bringing the vetiver into Laos, then Viet Nam, is Vacvina's problem – but what might need to be done for exporting it from Thailand?*

A Request for Vetiver Slip From Myanmar *

I have received a message from Mr. Kumar Upadhyay (Chief Technical Adviser, FAO Project MYA/96/007 – Watershed Management in Shan State, Myanmar – ed.) regarding the supply of 200,000 pantalets of vetiver for the project I have been involved in southern Shan State, Myanmar. He asked me to contact you for possible assistance. The conditions in southern Shan State are warm subtropical as the altitude for these planting will be between 900 to 1600 m with most around 1200 to 1300 m. I understand that difficulties have been encountered in Thailand with plantings above 1200 m but the ones obtained at 1200 m in Shan State soil temperature is adequate for root growth for about 6 to 8 months of the year over 2 °C at 500 mm depth.

Trials I have carried out in New Zealand in a cooler climate than Shan State have shown that careful trimming of leaves will allow good growth for 4 to 5 months of the year. I feel confident that vetiver will survive and grow adequately in Shan State but not as vigorously as in, say lowland Thailand or Malaysia where soil temperatures are about 35°C.

Some plants were imported to Shan State from Thailand in 1996 and limited field plantings in 1997 and 1998 have been relatively successful despite improper planting patterns.

I am not sure what ecotype you have available for the Myanmar project but certainly one that you find suitable for higher altitudes might be best. Because southern Shan State is a plateau, the soils at

* Extrachted from a letter to Mr. Sima Morakul, Director-General, Department of Land Development form Mr. Ken Crismier, Interim Coordinator, Vetiver Network Viet Nam, 4850 156th Ave. NE#395, Redmond WA 98052, USA, E-mail: Kencris@gte.net

** Extracted from a letter to Dr. Narong Chomchalow, Editor, Vetiverim, form Don Miller, e-mail: donmiller@clear.net.nz

higher altitude are not all steepland soils and red soils on slopes of about 10° are common. The soils are not saline by pH levels are 6 or lower.

The low light levels in the wet season will limit growth for those months and for that reason *V. nemoralis* (Mae Hong Son) might be suitable. On the other hand I see that *V. zizanioides* (Surat Thani) has been widely used in the Doi Tung Project, which I visited in 1996. I cannot recall the precise altitude of that project, but if it is about 1200 m then I would be happy with that ecotype. I can imagine that vetiver grass will spread to other areas of Myanmar from this present project and an ecotype that has general application will avoid confusion later.

Thank you for your assistance in these matters. The need for erosion control in this area is very real. I must also congratulate all those involved in the vetiver projects in Thailand. I was a volunteer lecturing in Agricultural Engineering at Khon Kaen University for 2 years in the early 1970's and I have watched the evolution of vetiver grass in Thailand with interest from 1992, when I visited Chiang Mai and later with awe when I saw the progress made in such a short time.

Vetiver and the Environment: An International Conference

At present, countries all over the world are encountering critical environmental problems. The severity of such problem increases at an alarming rate. In the past, many countries generally enjoyed their abundant supply of natural resources and environment which seem to be unlimited. Unfortunately, the ample existence of these resources have been utilized improperly and are deteriorating.

It is undeniable that human activities have also had a great impact on changes in the world geography and environment. Explicit examples include the explosion of mountains to build roads, drilling of mountains for mining, construction of dykes along rivers which creates large bowl of water storage comparable to a lake, or the destruction of forest resources. Besides those, other causes include chemical changes in the atmosphere as a result of emission of gas or certain types of chemical substances, earthquakes, landslide and land subsidence, extinction of wild animal and plant species, as well as waves of extreme heat or drought which have occurred in several parts of the world. Undesirable and critical changes to the environment caused by man are now impacting on human lives beyond control. Worst of all, one cannot anticipate the possible disastrous outcomes of this ongoing situation.

The good news is most countries are seriously trying to resolve or mitigate the problems by adopting several measures. Different methods including reliance of heavy machinery and cultivation of various crops have been attempted to resolve and prevent the problem. However, some of the methods involve high costs and the technologies applied are too complicated for farmers to implement.

It has been proven worldwide that vetiver grass grown as contour barriers across sloping lands provides a low cost and sustainable system with numerous advantages for environmental conservation,

e.g. preventing and controlling soil erosion, maintaining soil moisture, trapping heavy metals and other toxic materials before they reach valuable natural resources, etc. Moreover, the grass's ability to grow in areas containing high levels of toxic substances proves significant in removing heavy metals and other toxic materials by increasing the organic content and allowing the translocation of plant nutrients in the soil. All these help improve the conditions of the area, in terms of soil nurturing and atmospheric moisture.

Thailand is one of the countries facing the problem of soil erosion and has been utilizing vetiver grass in many areas throughout the country. In 1992, His Majesty the King graciously granted initiatives to relevant agencies to use vetiver grass for conserving soil and water as well as for other purposes on a continual basis. Consequently, study, experiment, research, together with actual cultivation of the grass in different areas, have been carried out. The fruitful results of the experiments have been extended to farmers who applied the cultivation on their own land and successfully improved the soil, allowing the benefits from farming to be realized.

On 4-8 February 1996, Thailand received the honor from The Vetiver Network to host the First International Conference on Vetiver (ICV-1) in Chiang Rai province under the theme of "*Vetiver: A Miracle Grass*". The seminar ended with overwhelming success in widely disseminating vetiver uses and benefits. On the auspicious occasion to commemorate His majesty King Bhumibol Adulyadej's Sixth Cycle Birthday Anniversary on 5 December 1999, Thailand is once again given the privilege by the Interim Committee for the Second International Conference on Vetiver (ICV-2) to host this second seminar. The main theme is to show that vetiver grass is one of the simple and low cost solutions to deal. With a broad and ever increasing range of environmental problems.

Conference Theme

Towards the new mill millennium: an era of practical and economical methods of vetiver utilization for environmental conservation and protection.

Objectives

1. To commemorate the Sixth Cycle (72nd) Birthday Celebrations of His Majesty King Bhumibol Adulyadej of Thailand;
2. To provide an international forum for experts to exchange views, knowledge and new techniques on the utilization of vetiver, especially on its attributes in environmental conservation and protection;
3. To educate the public and disseminate the knowledge on vetiver, its usage and application.
4. To be a venue for different vetiver networks and dissemination units all over the world to share their work experiences and achievements.

Organizing Agency

The Chaipattana Foundation and the Office of the Royal Development Projects Board,

Conference Technical Program

The conference technical program will be divided into four main sessions: plenary sessions, concurrent sessions, poster session, and technical tours. Research works and experiences on the following topics will be presented:

1. *Soil and Water Conservation Attributes*

- erosion control in agricultural areas
- land rehabilitation
- sedimentation control
- soil fertility improvement and associated impacts on farming practices
- watershed management
- improvement of extreme soil
- irrigation
- waterway stabilization
- any other related topics

2. *Pollution Control and Treatment Restoration and Rehabilitation of Disturbed and Contaminated Areas*

- wastewater treatment
- mine spoils
- non-point source pollution
- pollution from construction
- wasteland
- highway and other constructions
- bioengineering applications
- any other related topics

3. *Disaster Prevention*

- flood control
- hurricanes
- droughts
- mudslides
- fires
- structural failure
- any other related topics

4. *Training and Technology Dissemination*

- vetiver network experiences
- available sources of vetiver for dissemination
- economic way for vetiver application and for improving planting practices
- best practices of vetiver promotion
- any other related topics
- any other related topics

5. *Basic Research and General Studies*

- environmental tolerances and responses
- pest and plaque resistance
- heavy metal accumulation
- taxonomy
- genetic research
- association with other species

- CO2 absorption, C13 absorption

- any other related topics

6. *Alternative Uses of Vetiver*

- construction materials

- supplementary feed

- handicrafts

- weed prevention

- energy source

- essential oils

- traditional medicine

- any other related topics

7. *Other Topics*

- vetiver on national policies

- hydrologic regime regulation

- use of vetiver grass and its role in the certification of sustainable agriculture

Technical Tours

With particular reference to the environment, four sites for technical tours on vetiver researches, applications, and technology dissemination to farmers have been selected. Huai Sai Royal Development Study Center and Chaipattana – Mae Fah Luang Reforestation Project in Phetchaburi Province will provide activities concerning researches and applications of vetiver while visiting to a farmer's farm will enable the participants to see the practical use of vetiver and the successful application of vetiver .

Participants

A total of 300 participants are expected to attend ICV-2. These include about 120 international vetiver experts from countries of all regions, international organizations and development agencies. Additionally, about 180 local experts from Thai government agencies as well as non-governmental organizations involved in the utilization of vetiver are also anticipated to join the conference.

Venue and Date

Cha-am Regent Beach Resort Hotel, Phetchaburi, Thailand, 17-21 January 2000.

Official Language

The official language during the conference is English.

Registration Fee

As this Conference is organized to commemorate His Majesty the King's Sixth Cycle Birthday Anniversary, all participants will be treated as our special guests. Thus, there will be no fee for registration. This includes the attendance of all sessions ,the provision of all documents, and transportation while attending the ICV-2 (includes pick-up service from and to Bangkok Airport and study tours) However, due to the prevailing economic crisis, all participants are required to pay their own accommodations and all meals during the conference period.

Sponsorships

There will be a limited number of sponsorships for qualified participants from the developing countries. Those interested should send, along with the pre-registration form, their curriculum vitae indicating work experience related to the topics in the technical programs.

King of Thailand Vetiver Award

King of Thailand Vetiver Award has been announced since June 1997. According to the announcement, His Majesty the King of Thailand has agreed to award two US \$5,000 from the Chaipattana Foundation fund. One award will be granted to the best vetiver research work while the other for the best dissemination of vetiver technology. Nominees for these awards have already been selected by a committee of The Vetiver Network who sent them to the Thai Committee for the final selection of the winners. The awards have not been judged, however, since it was considered that as Thailand is about to host ICV-2, these awards should be extended to provide opportunity to other qualified persons whose papers will be presented at the concurrent sessions of the poster session of the ICV-2. Winners of the award will be announced in December 1999 and will be invited to attend the conference with full sponsorship.

Spouse Program

During the conference period, a spouse program will be provided for participants' spouses or accompanying persons to visit interesting places which are abundant in the area such as the near-by Cha-am and Hua Hin beaches, world famous's Damnoen Saduak Floating Market, Khao Wong Heritage Park, and Khao Luang Cave. The program will be arranged by the Tourism Authority of Thailand (TAT), the detailed information of which will be found in the Second Announcement.

Post Conference Tour

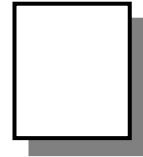
The post conference tour will be organized, in collaboration with TAT for the participants and accompanying persons to visit vetiver growing and applications in areas other than those specified in the technical tour program. The proposed areas will either be: (i) Chiang Mai and Chiang Rai in the North, or (ii) Pattaya in the East, or (iii) Phuket and Hat Yai in the South. Participants will have a chance to visit vetiver application fields as well as world famous tourist attractions of Thailand. Details of the tours will be given in the next issue of Vetiverim and the Second Announcement.

Second Announcement

The Second Announcement which will include detailed programs, instructions for submitting abstracts and papers, registration form and accommodation will be available in August 1999. It will be sent only to those who pre-register using the attached form (may be photocopied if needed).

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