



Farmer Dinh Cong Tay from Moc Chau, Son La is showing the persimmon grafting technique to Ambassador Allaster Cox
Ông Đinh Công Tẩy, nông dân ở Mộc Châu, Sơn La đang giải thích về kỹ thuật ghép Hồng với Đại sứ Allaster Cox

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Ambassador visits ACIAR projects in Son La province

*Photo: Visiting the trial field of second-crop beans (after maize) in Chieng Chan commune, Mai Son district
Thăm ruộng thí nghiệm đậu vụ hai sau khi trồng ngô ở xã Chiềng Chàn, huyện Mai Sơn*

Last October, Ambassador Allaster Cox visited Son La province to meet with provincial leaders, ACIAR research partners and projects. He and embassy staff, Geoff Morris, Nguyen Thi Thanh An and Nguyen Thi Ha Giang were warmly welcome by Mr Cam Ngoc Minh, Chairman of Son La province and staff. During the meeting, the issues of mutual interest such as scholarships, agricultural production and rural development were discussed. Mr Minh expressed his appreciation for the support from the Australian Government to the province and encouraged the links between the Australian support programs and local partners. Additionally, the delegation was also very well received by Tay Bac University and the North West Centre of the Forest Science Institute of Vietnam, which gave an excellent overview on their capacity, main activities and facilities for the research collaboration. Apart from the mentioned meetings, the

Ambassador spent a significant amount of his time to visit ACIAR project sites, meeting with key project staff from the above agencies as well as from North West Station of the Northern Mountainous Agriculture and Forestry Science Institute, and the National Institute for Animal Sciences, interacting with researchers and farmers who involve in three active projects: Persimmon (AGB/2006/066), Maize and Temperate Fruit (AGB/2008/002) and Beef Cattle Production (LPS/2008/049). The farmers from each project site passionately showed the Ambassador what they have been doing and openly discussed with him about their concerns, from techniques of persimmon grafting to diseases affecting their cattle herd or what was chosen to intercrop with their maize in the next season. Warm hospitality, delicious local food and beverage, and the scenic landscape of the north-western region made the busy-and-fruitful trip quite memorable.



*Ambassador Allaster Cox and Chairman of Son La province Cam Ngoc Minh
Đại sứ Allaster Cox và Chủ tịch Tỉnh Sơn La Cẩm Ngọc Minh*

Welcome to Dr Rodd Dyer

The Vietnam office welcomes Dr Rodd Dyer to ACIAR's Canberra office as the Research Program Manager for Agribusiness, one of the important research program areas for Vietnam.

Before joining ACIAR, Rodd worked for Meat and Livestock Australia and brings with him strong experience in implementing and managing research, development, communication and adoption activities of the Australian Northern Beef Program in different regions, working on supply chain management and agribusiness in domestic and export markets. He holds a PhD in agricultural economics from the University of Aberdeen, undertaken in association with the International Livestock Research Institute (ILRI) in the Philippines.

Rodd paid his first visit to Vietnam from 13–28 November 2011 with a very busy schedule, meeting with a number of partner institutes across the country and deeply looked

into three major projects under the agribusiness portfolio: Maize and Temperate Fruit (AGB/2008/002), Indigenous Vegetables (AGB/2006/112) and Counter-seasonal Vegetables (AGB/2010/059). For the Maize and Temperate Fruit project, he attended the planning workshop in Son La and Phu Tho provinces, visited the project sites in Son La and discussed activities with researchers, including scientists and farmers. For the Indigenous Vegetable project, he got a very good overview session with the project team in Hanoi, travelled to Lao Cai province to see the experiments firsthand, and attended the launch of a cooperative in Bac Ha district, which is newly established to produce and trade indigenous vegetables with a strong link to the project. For the Counter-seasonal Vegetable project, he visited the project sites in Son La province and met with partners in Hanoi.

We look forward to Rodd working more in Vietnam in the coming years.



*Rodd is attending a project workshop in Son La (above) and discussing with Dr Khanh (PPRI) on the persimmon project (below)
Ông Rodd đang tham dự một hội thảo dự án tại Sơn La (ảnh trên) và thảo luận với TS Khánh (Viện Bảo vệ Thực vật) về dự án Hồng (ảnh dưới)*

The 50th anniversary of the Forest Science Institute of Vietnam

The Forest Science Institute of Vietnam (FSIV) celebrated its 50th anniversary on 25 November 2011. ACIAR Country office staff attended this important event, appreciating the long-term and fruitful cooperation between the two organisations.

FSIV is the primary forestry research agency in Vietnam and has been one of ACIAR's main partners since the first days we worked here. So far ACIAR has funded 25 research projects with involvement of over 100 researchers. Additionally, 11 FSIV staff received ACIAR scholarships to study Master and PhD programs in Australia. The work that has been funded by ACIAR and with the direction mainly by researchers from CSIRO has had a lasting impact on forestry in Vietnam, helping establish a plantation resource and improve the varieties and yields for a number of tree species, most notably eucalypts and acacias.

Mr Geoff Morris, Country Manager in Vietnam on behalf of ACIAR and CSIRO handed over to Dr Nguyen Hoang

Nghia, FSIV director a certificate and a wooden plaque, which was made from red cedar (*Toona Ciliata*), a special timber from Northern Australia. In his speech, Mr Morris noted the achievements in the research partnership for the forestry sector, praised the contribution of FSIV researchers, and recognised the strong partnership between the ACIAR, CSIRO and FSIV.

With a forestry background and strong connection with FSIV even before joining ACIAR Vietnam, Mr Morris felt honoured to be at the event. He said 'During my time in Vietnam, I have worked across the country and now in many sectors of rural development and FSIV is the institute I have had the strongest association with'.

ACIAR congratulate FSIV on their 50th anniversary, wish them every success for another 50 years to come and look forward to continuing the strong partnership on their road ahead!



Dr Nguyen Hoang Nghia on behalf of FSIV receiving the red-cedar-timber plaque from ACIAR and CSIRO
TS Nguyễn Hoàng Nghĩa thay mặt FSIV nhận kỷ niệm chương bằng gỗ Tuyết tùng đỏ từ ACIAR và CSIRO



Interview with a farmer on oyster farming

Photo: Mr Kieu Van Dat with Ms Janine Pierce (left) and Mr Cao Van Hanh from RIA1 (right)
 Ông Kiều Văn Đạt với bà Janine Pierce (ảnh trái) và ông Cao Văn Hạnh - RIA1 (ảnh phải)

Oyster farming is a new industry in Hai Phong and Quang Ninh provinces. With assistance from an ACIAR funded project 'Building bivalve hatchery production capacity in Vietnam and Australia' (FIS/2005/114), good oyster seeds have been provided to the region and helped increase rapidly the yield of commercial oyster from year to year since 2007. Although there are still a number of constraints such as storms, fluctuation of production price or hard to control low-quality seeds from China, oyster farming is a promising industry for the region. It has provided more financial opportunity for farmers, created more jobs in the community and improved living quality for poor households. In the last trip to Van Don district, Quang Ninh province in early November 2011, the group led by Ms Janine Pierce from the University of South Australia conducted a community survey, looking into social-economic impacts of oyster farming as a new industry here. Below is the talk with one of the oyster farmers during the trip, Mr Kieu Van Dat from Na San village, Ban Sen commune, Van Don district, Quang Ninh province.

How did you start your oyster farming?

My family used to have only forestry activities and could not earn much. Since 2007 we started with Tu Hai clam (*Lutraria philippinarum*) farming and one year later when seeing good results from an oyster farm of a company nearby, I tried oysters (*Crassostrea gigas*) and have now had three crops so far. At the beginning I had only two rafts, and then expanded to five rafts of 64 m²/each.

Is it easy or difficult to farm oysters?

Oyster culturing is pretty easy, what you need to do is to hang spats and do some cleaning occasionally. Wait for 8–10 months and you can harvest. No need to feed, no need to use complicated techniques, and no need to do it in a particular period of time. However, this job depends a lot on nature. For example, there were a lot of typhoons last year, so we didn't earn as much as usual. Not to mention, many families' rafts were destroyed, which was also quite a big loss.

How is your income since farming oysters?

For the first crop of oysters, our income was relatively good. The second one, we made a profit of five to six million dong/raft. However, there were lots of typhoons during the third crop, so we didn't make any money.

In general, oyster farming is the second most important income for our family, behind Tu Hai. For oyster farming, we don't have to wait so long like Tu Hai, therefore farm and capital turnover is quicker. Since starting oyster farming, our family has bought a boat and a motorbike for transportation. Additionally, we also have money to invest in a forest plantation. The wood from the plantation is used to make oyster rafts, reducing the input cost for us.

How do you divide the work among your family in oyster farming? Do any of your children follow your career?

I have two sons and one daughter. One of the boys is doing the farming with me, and will soon be the main worker in this farm. My wife also participates. Oyster farming is not hard work, so women and sometimes even children can do it. Usually there is only me, my wife and my son working, but we have to hire some more people when it's time for preparing spats and harvesting.

What is your plan for oyster farming in the future?

I want to expand the farm. If the spats are good and the production achieves a stable price, I will enlarge the farm by five to seven, or even ten more rafts of oysters. I also hope we can get some loans from the bank with low interest for the expansion.

Climate change adaptation for rice-based cropping systems (CLUES)

(Project: SMCN/2009/021)



Photo: Screening of rice genotypes for salt tolerance at seedling stage, CLRRRI (photo by RV Labios)
 Thanh lọc giống chịu mặn ở giai đoạn mạ tiến hành tại CLRRRI (Ảnh: TS Romeo Labios)

The direct and indirect impacts of climate change will become a major challenge to maintaining food security in the near future, mainly through aggravating salinity and flood problems driven by hydrological dynamics of the Mekong River. The CLUES project is being implemented in four target areas, namely: An Giang, Hau Giang, Bac Lieu provinces and Can Tho city, which represent specific agroecological zones of the delta. In the context of the project, a target area comprises an experimental farm plus the surrounding villages which will be used for socioeconomic studies and participatory research. The investigation in these target areas will also serve as 'entry points' to engage and build capacity with local officials and farmers for future uptake of technologies in other locations in the agroecological zone. The general objective of the project is to provide farmers and management agencies the technologies and knowledge that will enhance and sustain food security in the Mekong Delta. The International Rice Research Institute (IRRI) serves as the lead international institution while Can Tho University (CTU) serves as the lead Vietnamese institution.

First project review and planning meeting

After seven months of implementation, the first review and planning meeting for the project was held on 18–19 October 2011 at CTU. The six Theme Leaders presented accomplishments for the period March to September 2011 and plans for October 2011 to March 2012. More than 30 Vietnamese participants from CTU, Cuu Long Delta Rice Research Institute (CLRRRI), Southern Institute for Water Resources Planning (SIWRP), Institute of Agricultural Sciences for Southern Vietnam (IAS), and Department of Agriculture and Rural Development (DARD) of the four provinces joined the activity. Representatives from GIZ Bac Lieu province were also invited. Lead scientists from IRRI and Australian Commonwealth Scientific and Research Organization (CSIRO) delivered plenary papers on recent developments in abiotic stress rice research. Dr Le Quang Tri, Vice Rector of CTU and the National Project Director of CLUES project, mentioned that the operational, administrative, and scientific aspects of the project are now implemented since it started in March 2011. He further

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Participants during the first project review and planning meeting, 18–19 October 2011 in Cantho
Đại biểu tham dự hội thảo sơ kết và lập kế hoạch đầu tiên của dự án, 18–19 tháng 10 năm 2011 tại Cần Thơ

expressed thanks for the concerted effort of all partners through the leadership of Dr Reiner Wassmann of IRRI. Dr Nguyen Anh Tuan, Rector of CTU, expressed confidence that the current partnership will further strengthen and accelerate the achievement of project goals and objectives. He also reiterated the commitments of CTU to provide all needed support for the project, including facilities and manpower. For his part, Dr Reiner Wassmann, Project Leader of IRRI, stressed its importance for IRRI and how it can be seen as a prototype for projects addressing issues related to climate change (referring to the six components of the project). He also raised issues on how to better link within and between institutions and Themes to bring together a coherent approach. Geoff Morris, the ACIAR Vietnam country manager, presented updates on other sister ACIAR funded programs in MRD and stressed the importance of CLUES to ACIAR. He shared his views on establishing successful partnership that leads to project success.

Some participants visited Bac Lieu province, location of the on-farm Participatory varietal selection (PVS) trials on salt and submergence tolerant rice varieties. Other sites visited were the experiment on nutrient management and the provincial seed center of DARD. A presentation was made by Dr Joachim Hofer, Coastal Forest and Ecosystems Management Manager, on possible collaboration with the CLUES project, and GIZ's rice component in Bac Lieu province. This collaboration will focus on the identification and dissemination of suitable salt-and-submergence-tolerant rice varieties as well as dissemination of safe alternate wetting-and-drying technology.

Development and field evaluation of stress tolerant rice

Development of high yielding rice varieties tolerant to salinity, submergence, acid-sulphate, and medium stagnant water stresses is one of the objectives of the project. This component is led by Dr Nguyen Thi Lang of CLRRRI in collaboration with Dr Abdelbagi Ismail of IRRI and Dr Russel Reinke of Australia as flash floods, salinity, acid-sulphate and water stagnation are major constraints in the rain-fed lowland ecosystem in the Mekong Delta. The focus is on applied research to achieve a rapid impact. It is also the aim of the project to bring advances in

molecular biology and genetics to develop rice varieties that have higher and more stable yield in saline and acid-sulphate areas as well as in areas affected by submergence and stagnant floods. From the more basic standpoint, molecular biology research will assist in identifying genes for different abiotic stress tolerances. Further basic information on the genetics of additional mechanisms and QTLs can help in combining them through conventional and marker-assisted breeding in high-yielding cultivars to achieve higher levels of tolerance.

Initial accomplishments showed that 36 single and multiple crosses were made to combine submergence and stagnant flood tolerances and high grain quality into high yielding genetic backgrounds. Four crosses were selected and confirmed as true BC1F1. Pedigree generations were grown under controlled submergence and natural stagnant water conditions at CLRRRI.

In total, 300 local varieties (200 traditional and 100 improved varieties) of Vietnamese germplasm were screened against 14 days of controlled submergence in the plant physiology tank of CLRRRI. These lines were also evaluated for salt tolerance. A number of lines (OM8927, OM6161, OM6162, and TLR7) showed good survival and recovery after submergence. Twenty seven lines were selected as salt tolerant, including OM5629 and OM6677, and a further 12 genotypes were identified with rapid recovery such as MNR1, MRN4, MNR3, OM6677, and OM70 (Figures 3 and 4). It is expected that the newly released acid-sulphate soil and salt tolerant varieties will be widely out-scaled through participatory varietal selection (PVS) trials and seed network activities.

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BC1F1 lines selection for salt tolerance in the experimental field of CLRRRI

(photo by NT Lang)

Dòng BC1F1 chịu mặn trong thí nghiệm ngoài đồng của CLRRRI

(Ảnh: GS Nguyễn Thị Lang)

Participatory varietal selection (PVS)

Participatory varietal selection (PVS) protocols are used for evaluating stress tolerant rice (STR) genotypes on-farm to incorporate the perspectives of farmers, including those of women, in the pre-release stage of the breeding process. This approach evolved in response to the low rates of adoption of technologies and appropriate varieties that can increase farmers' production and farm income. Introducing PVS into a rice varietal development program can increase the chances that its major outputs will be adapted.

For this cropping season, 14 submergence high yielding genotypes along with three standard checks and additional entry of farmer's variety are evaluated in selected farmers' fields at Bac Lieu, An Giang, Hau Giang provinces and Can Tho city. IR64-Sub1, OM4900, and IR42 are used as common checks in all PVS submergence trials. Another PVS researcher-managed trial of 12 salt tolerant high yielding genotypes along with two standard checks and additional entry of farmer's variety are evaluated in selected farmers' fields at Bac Lieu province. AS996, OM4900 and IR42 are used as common checks in all PVS salt tolerant trials. In addition, 12 stagnant tolerant rice genotypes and additional entry of farmer's variety are evaluated in selected farmers' fields at Cantho City and Hau Giang province. OM4900 is used as common check in both PVS stagnant tolerant trials. Further, 12 acid-sulphate tolerant rice genotypes and additional entry of farmer's variety are evaluated in selected farmers' fields in Hau Giang province using AS996 as local check.

Promising salt and submergence tolerant rice varieties identified in different hydro-ecological zones as a result of PVS will be submitted for accreditation or registration for commercial production and can enter the commercial seed chain in the Mekong Delta by the end of the project.

Accomplishments of the other project components will be highlighted in the next issue. These are: 1) geo-spatial analysis of flooding and salinity risks under different sea-level scenarios, 2) development of integrated soil, crop, nutrient and water resources management, 3) identifying the biophysical, social and economic factors determining the capacity of farmers to adapt to climate change, 4) in-depth analysis through land use planning in coastal areas, and 5) building capacity for assessing greenhouse gases from rice fields.

Other IRRI scientists involved in the project are Dr To Phuc Tuong (Principal Scientist and Water Management Specialist), Dr Thelma Paris (Senior Scientist and Gender Specialist), Dr Romeo Labios (Consultant and Interim Project Facilitator from July to October 2011) and Dr Ngo Dang Phong (Post-Doc Fellow and Project Facilitator from November 2011 onwards). The CSIRO scientists involved in the project are Dr Bennet Macdonald (Senior Research Scientist, Land and Water), Dr Peter Brown (Senior Research Scientist, Ecosystem Sciences) and Dr John Ward (Senior Research Scientist, Ecosystem Sciences).

The official office address of the project is Can Tho University, Campus 2, 3/2 Street, Xuan Khanh Ward, Ninh Kieu District, Can Tho City, Vietnam, Tel: +84 7103 734 571; Fax: +84 7103 734 581; E-mail: <clues@ctu.edu.vn>; Website: <irri.org/our-science/climate-change/climate-research/clues-project>.

Related links of news articles about CLUES project:

- 1 <irri.org/news-events/irri-news/vietnam-first-review-and-planning-meeting-for-clues-project-held>
- 2 <irri.org/news-events/irri-news/vietnam-clues-project-staff-members-attend-course-on-participatory-adaptive-research>
- 3 <irri.org/news-events/irri-news/vietnam-clues-project-office-at-can-tho-university-inaugurated>

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Beef cattle production in the north-western highlands of Vietnam

(Project: LPS/2008/049)

By Dinh Van Tuyen¹ and Stephen Ives²

A new ACIAR funded project 'Overcoming technical and market constraints to the emergence of profitable beef enterprises in the north-western highlands of Vietnam' was officially signed in June 2011 by Mr Allaster Cox, the Australian Ambassador to Vietnam, and Dr Bui Ba Bong, Vice Minister of Ministry of Agricultural and Rural Development of Vietnam.

The University of Tasmania (UTAS) in Australia, the National Institute of Animal Sciences (NIAS), the Centre for Agrarian Systems Research and Development (CASRAD), Hanoi University of Agriculture (HUA), and Thai Nguyen University of Agriculture and Forestry (TNU) in Vietnam are the main partners in the project. However, collaborations with CIRAD (Centre de coopération internationale en recherche agronomique pour le développement - France), Department of Agricultural and Rural Development at provincial and district levels, communal and community leaders, and Tay Bac University have also been established.

The aim of the project is to develop, evaluate and implement new technical and market strategies to improve incomes from beef cattle for the smallholders in the north west highlands of Vietnam, and will be achieved with the following objectives:

- To improve the efficiency and effectiveness of existing beef value chains and the profitability and sustainability of the value chain for smallholder cattle producers;
- To quantify the biophysical and socio-economic characteristics of the small farming systems involving cattle production;
- To develop and test viable management strategies for capitalizing on market opportunities and minimizing the impact of the cold, dry season and other important cattle production constraints.



Stakeholder workshop in Son La, September 2011
Hội thảo tác nhân ở Sơn La, tháng 9 năm 2011

The 4-year project commenced in April 2011 and will be implemented in four communes of Son La and Dien Bien provinces where the majority of the people are ethnic minorities, living in poverty. In these areas, beef cattle production is considered by the local governments as an important activity to improve the farmer's incomes over the next 10 years. However, development of beef cattle is currently restricted by poor access to profitable markets, compared to other regions of Vietnam, and biophysical

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constraints to livestock production such as long dry winters and remote mountainous terrain.

During this first year of implementation, the project team will be conducting activities to analyse the existing beef value chain, and to characterize the biophysical and socio-economic features of the smallholder cattle production farming system in each project site. It is anticipated that outputs from these activities will help to develop feasible market and technical interventions and/or strategies to maximize productivity and profitability of beef cattle production for smallholders. Such interventions will be tested during the next three years both on and off farm for evaluation before extending results to other communes and/or provinces in the region.

Up until November 2011, the project team has completed several activities, including a review of the literature and background information for both the technical and value chain (marketing) components, a value chain analysis

training workshop for researchers involved in the project, a stakeholder workshop in Son La to inform the baseline survey questionnaire design, and baseline surveys for both the technical and value chain components in all project sites in Son La and Dien Bien provinces. Another stakeholder workshop was organized in Son La in December 2011 to validate the results of the baseline surveys in both provinces and to develop the potential interventions to be tested in year two of the project.

Throughout this initial phase of the project, the enthusiasm and willingness shown by all participants is particularly encouraging, with the project now well placed to achieve the documented milestones and outcomes 'on time and on target'.

¹ *National Institute of Animal Science (NIAS), Hanoi, Vietnam*

² *the University of Tasmania (UTAS), Tasmania, Australia*



Primary school students near a project site in Thuan Chau district, Son La province
Học sinh tiểu học ở gần một điểm thực hiện dự án thuộc huyện Thuận Châu, tỉnh Sơn La

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Sustainable cropping systems for sandy soils of south central coastal Vietnam

(Project: SMCN/2007/109)

By Richard Bell¹, Surender Mann², Hoang Minh Tam³, Hoang Thi Thai Hoa⁴, Phan Thi Cong⁵, Hoang Vinh⁶, Nguyen Thai Thinh⁷, and Nguyen Van Bang⁸

South central coastal Vietnam (SCCV) alone has more than 500,000 ha of sandy soils derived from granite weathering, alluvial deposition and wind-blown coastal dune systems. These sandy soils are characterized by low nutrient holding capacity as these soils are low in organic carbon (<1%) and clay content (<5%). Organic matter and clay are the essential components of soil to maintain sustainable agricultural systems. In general, such soils usually have low water and nutrient availability and are also prone to land degradation such as soil acidity.

The overall aim of this project is to improve livelihoods of smallholders through the development of sustainable crop production systems that target market opportunities for the sandy soils of the south-central coastal region without compromising sustainability.

Highlights from our research to date are:

- Low soil fertility and soil constraints associated with low soil pH were common on all types of sands in Binh Dinh, Phu Yen and Ninh Thuan;
- Most of the sands had low organic matter content (< 1% C);
- Deficiency of macro (N, K and S) and micro (B, Cu, Mo and Zn) elements was clearly identified as a major limitation to peanut production through field trials. Overcoming these nutrient deficiencies should boost crop and fruit production significantly;
- For crop production, farmer's prefer using inorganic fertilizers to organic manure due to i) ease of application and transportation, ii) immediate response on crop yields because of faster availability to plants, iii) high amounts (20–30 tonnes per hectare) of manure to meet crop nutrient requirements for maximum productivity, iv) a shortage of manure restricts the use;

- Irrigation based on a minipan was tested in Binh Dinh and was found to be effective for increasing yield of peanuts. However, the minipan needs to be re-calibrated for mango and cashew;

- The next stage of research is to develop an integrated nutrient management (INM) system using resources like manure and biochar along with inorganic fertilizers to boost production and maintain sustainable systems in this region. For example, peanut yields increased significantly from 0.99 to 2 tonnes/ha after adding inorganic fertilizers (NPK), manure and biochar. In another trial on peanut yield of more than 3 tonnes/ha was achieved after the application of balanced fertilizer including micronutrients and sulphur as well as NPK.

The project is developing technologies and practices for more sustainable and profitable farming systems. This includes:

- Conducting farm surveys to better understand use of crop residues and manure in the local farming systems, farmer's perception, their limitations and educating



Examining peanut roots in the trial field
Kiểm tra rễ cây Lạc trên ruộng thí nghiệm

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them of the importance of these residues in offsetting cost of inorganic fertilization and the implications on the environment and sustainability;

- Characterizing local organic materials (crop residues, biochar and manures) to assess their potential in supplying nutrients to crops;

- Budgeting nutrient input and output and their cycling at a field level to develop INM practices that are specific and suitable for local farming systems;

- Testing minimum tillage planting to improve soil surface management to reduce soil erosion and prevent the loss of organic C;

- Develop sustainable fertilizer and irrigation management practices for vegetable crop production to reduce groundwater pollution;

- Identify and implement better communication strategies through local agricultural departments like DARD to facilitate technology adoption;

- Facilitate capacity building for researchers and extension staff in Vietnam through training in Australia and training workshops in Vietnam.

(1) Value chain analysis for sustainable and profitable farming systems on the South Central Coast; (2) Sustainable cropping systems for sandy soils, and (3) Better integration of beef cattle production with crop production. The project is ACIAR's support for agriculture in SCC, initiated by ACIAR project (SMCN/2003/035) that aimed to improve water management for perennial crops in the South Central Coast. The overall project is coordinated jointly by the Agricultural Science Institute for Southern Central Coast of Vietnam (ASISOV) in Vietnam and the Department of Agriculture and Food, Western Australia (DAFWA).

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⁴ Hue Agricultural and Forestry University

⁵ Institutes of Agricultural Sciences for Southern Vietnam (IAS)



The crop component is one among three components of a 4-year multidisciplinary project (SMCN/2007/109) officially commenced in January 2009, entitled 'Sustainable and profitable crop and livestock systems for south central coastal Vietnam'. Components include

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Healthy new vegetable industry for north-western Vietnam

(Project: AGB/2009/053)

By Gordon Rogers

Photo: An Thai village cabbage production
Sân xuất cải bắp tại bản An Thái.

Vietnamese love vegetables; they are on the table with nearly every meal.

Vegetables are also an important part of the country's economy. Vietnam now produces 11.4 million tonnes of vegetables annually on 772,000 ha of land, and this is increasing at 6% per annum.

Hanoi and surrounding cities in the north consume a large proportion of these vegetables, and while there is a strong vegetable producing industry in peri-urban Hanoi, the local conditions are not always suitable for producing some of the most important vegetable crops.

Summer temperatures in the traditional vegetable growing areas around Hanoi are too high to grow many of the vegetables Vietnamese people love to eat, such as cabbage, tomatoes, peppers, beans, lettuce, broccoli and carrots.

From May to September temperatures in Hanoi normally reach about 32°C, but it is not uncommon for them to climb to a scorching 40°C between May and July.

Cool season vegetables struggle at these temperatures. For example, tomatoes don't set fruit, broccoli heads are deformed, and lettuce and cabbage don't form heads at all.

To overcome these problems, cool season (temperate) vegetables in summer have mostly been grown in the cooler areas around Da Lat and transported to Hanoi and other northern centres by road — a distance of 1,500 km which takes more than two days by truck.

The other alternative is to import vegetables from China during the northern summer but this brings with it concerns about questionable food safety standards and pesticide residues.

The solution could be the north-western Vietnam town of Moc Chau, located in the province of Son La.

Moc Chau is 300 km from Hanoi via a good road. It has large areas of arable land and an elevation of 1,000 m above sea level. The elevation is important because it means the temperatures during summer are much cooler than Hanoi. The summer averages are about 18–25°C, similar to Da Lat and well suited to vegetable production.

Moc Chau has all the other requirements for growing good vegetables. A total area of about 2,000 km², large parts of which are suitable for cropping, adequate water



Ta Niet village showing H'mong cabbage, tomato, onion and other crops.
Cải bắp xèo, cà chua, hành và các loại rau khác tại bản Tà Niết.

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Protected cropping structures in the Philippines developed as part of an ACIAR project there. These structures will be evaluated as part of this project

Loại kiến trúc nhà lưới tại Philipin đã được xây dựng trong một dự án ACIAR sẽ được áp dụng cho dự án rau Mộc Châu

for irrigation and sufficient infrastructure to support a new vegetable industry in the region.

The area has a strong tradition of agricultural production, with major industries including dairy and corn production already well established.

Farmers in Moc Chau are hard working and capable, but despite these efforts are usually poor. If they are able to access these markets in Hanoi, they open up a much larger market for their crops, and this in turn means better prices and higher farm incomes.

How the project will help Moc Chau farmers supply retail markets in Hanoi and other northern centres in Vietnam

The project operates from two directions. One group is working on the marketing aspects and forming strong links between markets in Hanoi and the farmer groups in Moc Chau. These new linkages are crucial to the success of the project. In Moc Chau, as in most rural Vietnamese communities, there is a strong commune and village system, and the project team is using these existing groups for training, production and marketing.

The second arm of the project is aimed at improving the technical growing skills of the farmers in areas such as postharvest handling, safe vegetable production, better crop varieties and in the use of low-cost greenhouses to protect crops from rain.

The project team is working directly with communes in Moc Chau and has set up sites at Ta Niet village (Chien Hac commune), An Thai village (Muong Sang commune) and the Tu Nhen village (Dong Sang commune). These

villages have a range of ethnic backgrounds but all are involved in vegetable growing and have a strong leadership system already in place.

Project participants

Vietnam: The Northern Mountainous Agriculture and Forestry Science Institute (NOMAFSI) is the coordinating organisation in Vietnam; it takes a lead role in conducting farm trials, and providing some of the training activities and agronomic expertise.

The Hanoi University of Agriculture (HUA) is responsible for the economic assessments and for coordinating farmer business schools. The Centre for Agrarian Systems Research and Development (CASRAD) is responsible for consumer studies and supply chain optimisation. It is assisted in a marketing role by the Fruit and Vegetable Research Institute (FAVRI) which also provides some agronomic and postharvest expertise.

The Centre for International Cooperation in Agronomic Research for Development (CIRAD) is responsible for regional activities in Moc Chau and also has a coordination role between CASRAD, FAVRI and CIRAD.

Australia: Australian operations are coordinated by the project leader, Dr Gordon Rogers (University of Sydney) who also provides agronomic expertise. Dr Ken Menz, an agricultural economist, is assisting with the farmer business schools and also with the economics assessments being carried out by HUA. Mr John Baker (Produce Marketing Australia) is providing marketing direction for the project and is a key liaison person between project partners and Metro. Mr Mike Titley is a vegetable agronomy specialist with significant experience in developing countries; he is assisting with vegetable agronomy from both consulting and research perspectives.



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Departure of John Allwright Fellows

Congratulations to the six students who won the fellowship and left Vietnam to commence their study in Australia in 2011. They are:

Nguyễn Tuấn Minh	University of Queensland	PhD	AGB/2006/066	21/01/2011	31/03/2015
Nguyễn Hữu Nhuận	University of Queensland	PhD	AGB/2008/002	27/06/2011	31/08/2015
Nguyễn Hải Quân	University of Tasmania	Master	SMCN/2007/109	18/07/2011	03/10/2013
Vũ Văn In	Sunshine Coast University	PhD	FIS/2005/114	31/10/2011	01/02/2016
Vũ Đình Huống	University of Tasmania	PhD	FST/2006/087	14/11/2011	20/02/2016
Triệu Thái Hưng	University of Tasmania	PhD	FST/2006/087	14/11/2011	20/02/2016

New John Allwright Fellows

Applications for post-graduate study in Australia through ACIAR's John Allwright Fellowship program for the academic year 2012 closed on the 31 July 2011. The ACIAR Hanoi Office received 12 applications and we are pleased to announce that nine candidates have been short-listed and invited to sit an English language test (IELTS).

They are Nguyen Thai Thinh (ASISOV), Nguyen Bao Ngoc and Tran Thanh Trang (FSIV), Dang Duy Minh (Can Tho University), Tran Thanh Hai (Hue University), Cao Truong Giang (RIA1), San Tram Anh (SIAEP), Nguyen Dinh Quang Duy (RIA3), and Pham Thi Hanh Tho (CASARD).

We wish them GOOD LUCK for the test and beyond!

John Dillon Memorial Fellowship

We are delighted to announce that Dr Phan Thuy Hien (NIMM), Dr Pham Thi Ngoc Linh (IPSARD), and Dr Dinh Van Tuyen (NIAS) were selected and invited to visit Australia from 8 February–21 March 2012 to take up this prestigious research management and leadership fellowship. A total of nine Vietnamese fellows have now been selected for this program. Each year only about 10–12 fellows from all the countries ACIAR works in are selected. The program includes a leadership and management course in Melbourne, followed by targeted visits to institutions related to their field of work and a week in ACIAR headquarters in Canberra.

Dr Dinh Van Tuyen is Deputy Head of Animal Feed and Nutrition Department of NIAS. He is designing, implementing and coordinating research programs/projects in the areas of animal feed, animal nutrition, and animal production system.

ACIAR Vietnam Office wishes Dr Hien, Dr Linh and Dr Tuyen an enjoyable and successful visit to Australia. We hope that their leadership skills in the areas of research management will be further developed through their exposure to a range of best-practice organisations involved in research, extension and policy making.

Dr Phan Thuy Hien heads the Department of Crop Cultivation and Plant Protection at the Hanoi Research Centre for Medicinal Plants, part of the National Institute of Medicinal Materials (NIMM). She is also a member of the NIMM Scientific Board and International Cooperation Department, supporting the research management and international partnership activities. Hien is also the Project Co-ordinator for the Indigenous Vegetable project AGB/2006/112 funded by ACIAR.



Dr Phan Thuy Hien



Dr Dinh Van Tuyen (left)

The Australian Alumni Award 2011



professional development. Early 2000, I was honoured to be selected as a John Allwright Fellow established by ACIAR to participate in a PhD study program. The School of Veterinary Science, University of Queensland, Brisbane where I spent 4 years to study is my lovely second home. I know I have grown up and learnt a lot after my time studying there. The student life in Brisbane and at the University has taught me how to live independently and conduct research effectively. This is really my most valuable and unforgettable time in my life.

I would like to take this opportunity to express my sincere thanks to Australia Government, the Australian Embassy in Ha Noi, Australian Consulate-General in Ho Chi Minh City, VGAC and the University of Queensland for their great support to organising this special event. The success of my career today would not have been possible without financial support from ACIAR and School of Veterinary Science, the University of Queensland. My deep gratitude for the board and all staff members of School of Veterinary Science, the University of Queensland, particularly to Ass. Prof. Dr Darren Trott who has motivated me a lot during my studying. His enthusiasm, kindness and generosity with his time and knowledge were never ending to me.

The Award will remind me to work harder to contribute more to Vietnam's economy and society, and to build up a stronger collaboration network between the two countries, Vietnam and Australia.

Do Ngoc Thuy

(National Institute of Veterinary Research)

I t's so proud of me to be selected for the Australian Alumni Award for Innovation and Research this year. I think the award is not only for me individually, but also for all staff who have been working very diligently at the Department of Bacteriology, National Institute of Veterinary Research (NIVR) of Vietnam. The Award is really important for my career. It marks my efforts in the animal health field in Vietnam over the past ten years and encourages me a lot for future professional development.

Personally, I think I was one of the very lucky alumni among graduates from Australia. The degree I got from Australia really has played a significant role in my personal and

ACKNOWLEDGMENT

We would like to thank all contributors for sharing their news and views with us, as well as bearing with us if there are any printing/editing errors. We would appreciate readers' contribution to the next issue by sending us your project's news/update, photo and/or any story you deem relevant, to the address below:

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8 Dao Tan, Hanoi, Vietnam
Email: Thi-Thanh-An.Nguyen@dfat.gov.au



PVS RM trials of 12 salt tolerant rice genotypes in rice-shrimp systems in Phuoc Long, Bac Lieu province (photo by RV Labios)
Thí nghiệm PVS RM trên 12 giống chịu mặn trên hệ thống lúa-tôm ở Phước Long, tỉnh Bạc Liêu (Ảnh: TS Romeo Labios)



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