

#### The Forages for Smallholder Project (FSP)

The Forages for Smallholders Project (FSP) is a Southeast Asian regional program funded by AusAID that commenced in 1995. It is managed by CIAT (Centro Internacional de Agricultura Tropical) and by CSIRO Tropical Agriculture (Commonwealth Scientific and Industrial Research Organization of Australia). The FSP is a network of smallholder farmers, development workers and researchers in Indonesia, Lao PDR, Malaysia, Philippines, Thailand, Vietnam and southern China. The focus of the project is to develop forage technologies in partnership with smallholder farmers in upland areas, where forages have potential to improve livestock feeding and management of natural resources.









# Developing forage technologies with smallholder farmers

how to select the best varieties to offer farmers in Southeast Asia

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Published by ACIAR and CIAT. ACIAR Monograph No. 62

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#### ISBN 1 86320 271 4

Horne, P.M. and Stür, W.W. (1999). Developing forage technologies with smallholder farmers – how to select the best varieties to offer farmers in Southeast Asia. ACIAR Monograph No. 62. 80pp. Design and layout by Albert Borrero, IRRI, Los Baños, Philippines. Cartoons by Dave Daniel, Australia. Cover illustration by Kongphat Luangrath, Lao PDR.

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## Acknowledgments

This booklet is based on the experiences of researchers and farmers working with the AusAID-funded Forages for Smallholders Project (FSP) in Southeast Asia. This project is a partnership of smallholder farmers, development workers and researchers who are using participatory approaches to developing forage technologies on farms (see inside cover for details). More than 600 forage varieties were evaluated by FSP partners, including varieties selected by national programs and varieties from germplasm collections of CIAT (Centro Internacional de Agricultura Tropical) and CSIRO (Commonwealth Scientific and Industrial Research Organization of Australia). This work would not have been possible without access to these extensive forage germplasm collections. All of the forages included in this booklet are being used by smallholder farmers and have significant potential for improving livestock production and natural resource management. Many people have contributed to the development and production of this booklet. Special thanks go to the partners of the FSP including Le Van An, Perla Asis, Le Hoa Binh, Wong Choi Chee, Francisco Gabunada, Liu Guodao, Bryan Hacker, Heriyanto, Ibrahim, Tatang Ibrahim, Peter Kerridge, Truong Tan Khanh, Elaine Lanting, Eduedo Magboo, Willie Nacalaban, Ganda Nakamanee, Chaisang Phaikaew, Phonepaseuth Phengsavanh, Vanthong Phengvichith, Viengsavanh Phimphachanhvongsod, I. Ketut Rika, Tugiman and Maimunah Tuhulele. The original introduction and evaluation was conducted by Bert Grof. Early evaluations on-farm were supervised by Trevor Gibson and Arthur Cameron.

Thanks are due to Arthur Cameron, Bruce Cook, Bert Grof, Michael Hare, John Hopkinson, John Miles and Max Shelton who provided comments on the draft of the booklet. We also thank Albert Borrero for preparing the layout and Ian Partridge, Nathan Russell and Julio Martínez for their layout ideas. Photographs were supplied by Jim Holmes, Alan Pottinger, Emma Louie Orencia, Lingkod Sayo, Wong Choi Chee, Michael Hare, Werner Stür and Peter Horne, and are credited with their initials. Cartoons were drawn by Dave Daniel and the cover drawing is by Kongphat Luangrath.

We also thank CIAT, CSIRO, the Department of Livestock Development (Thailand), Oxford Forestry Institute, and other national and international programs in Southeast Asia, Latin America and Australia for providing the information and seed which was essential to running this forage evaluation and development program in Southeast Asia.

The publication of this booklet has been generously funded by ACIAR.

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# Before you start ...



## Before you start ...

### What are forages?

Forages are grasses, herbaceous legumes and shrub/tree legumes that can be used for feeding animals. They can also be used for better management of natural resources including erosion control, soil fertility improvement and weed control. This booklet emphasizes forages that are being used successfully by smallholder farmers. Often they provide multiple benefits.

### Why is this booklet needed?

Livestock are an important component of upland farming systems in Southeast Asia. In the past, feed resources were plentiful. On many farms this is no longer the case, so farmers have to spend more and more time finding feed for their animals. Planting forages can help to overcome this problem. However, no two farms have the same resources and needs. Forages that are suitable on one farm may not be suitable for other farms. The best way to develop the 'right' forage technologies for each farm is for farmers to evaluate promising forage technologies and adapt the best options to their situation.

In this participatory approach the role of the development worker is to give farmers information about forages that may solve their problems. There are many forages and ways of growing them on farms. Not all will be suitable for a particular situation and need. This booklet will help development workers to select appropriate forage options to offer farmers.

This booklet does not attempt to list all species and varieties that could be grown. It contains only those that grow in a wide range of conditions and either are being used successfully by smallholder farmers or have significant potential in Southeast Asia. Details on management and utilisation of these species can be found in another booklet in this series 'Developing forage technologies with smallholder farmers - how to grow, manage and use forages'.



