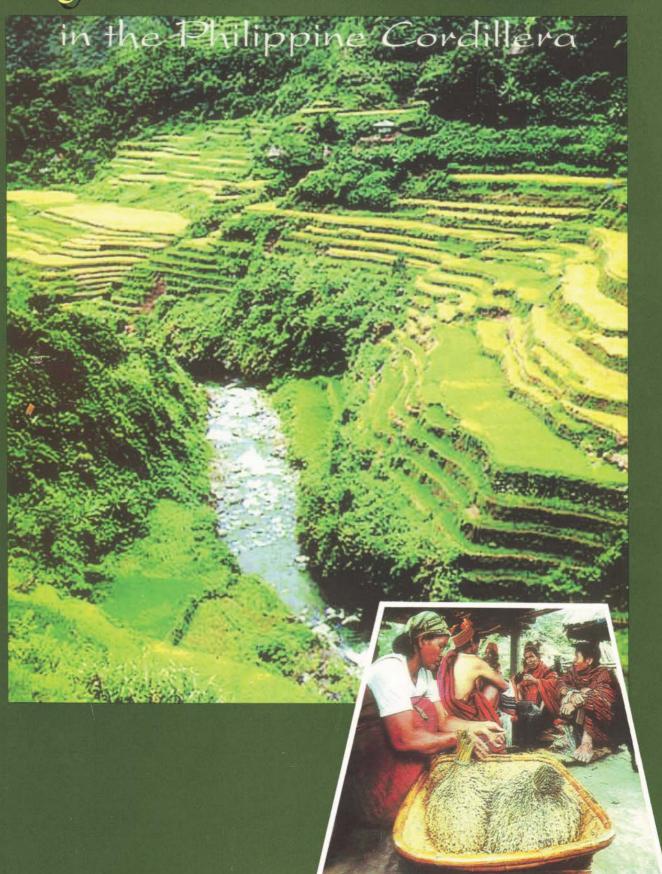
Highland Rice Production



Correct citation

CECAP and PhilRice. 2000. **Highland Rice Production in the Philippine Cordillera**.

Central Cordillera Agricultural Programme (CECAP),
Banaue, Ifugao and Philippine Rice Research Institute
(PhilRice), Maligaya, Muñoz, Nueva Ecija.

Published 2000 ISBN 971-9081-09-0

Highland Rice Production

in the Philippine Cordillera



CENTRAL CORDILLERA AGRICULTURAL PROGRAMME (CECAP)

February 2000



CECAP is a development programme of the Department of Agriculture, jointly funded by the Government of the Philippines and the European Union.

Published with the cooperation of



Philippine Rice Research Institute (PhilRice)

The Philippine Rice Research Institute (PhilRice) is a government corporation attached to the Department of Agriculture. Executive Order 1061, approved on November 5, 1985 and amended by EO 60 dated Nov. 7, 1986, created PhilRice to help develop high-yielding technologies so that farmers can produce enough rice for all Filipinos. PhilRice accomplishes this mission through research, development, and extension, which are implemented through a network that includes 56 agencies and 98 seed centers strategically located nationwide. Its interdisciplinary programs include the following: transplanted and direct-seeded irrigated lowland rice; hybrid rice; rice for adverse environments; rice-based farming systems; rice and rice-based products; policy research and advocacy; and technology promotion. With these eight programs, PhilRice aims to develop and promote technologies that are ecosystem-based, location- and problem-specific, and profitable to the Filipino farmers.

Contents

Message How this Resource Book was Produced		
Overview of the Rice Production in the Philippine Cordillera		
Overview of the rice production in the Cordillera	3	
Rice production constraints in the Cordillera and emerging solutions	6	
Sustaining the terraces: the role of forests in micro-watersheds	11	
Features, resource use, problems and strategies for the highlands		
of the Cordilleras	16	
Traditional Ifugao land use system	20	
Financial analysis of rice production in the Cordillera	22	
Important considerations about rice production	25	
Labor allocation in rice production	27	
Gender and rice production in the Cordillera	32	
Rice Biodiversity		
Rice biodiversity in the Cordillera region	41	
Outstanding rice varieties in the Cordillera	45	
Rice-based Cropping Systems		
The <i>Inago</i> : enhancing a traditional cropping system in the Cordillera	51	
Rice ratooning: a potential and challenging technology		
for the Cordillera	54	
Rice-taro	58	
Camote in rice-based cropping systems	63	
Rice-vegetable farming system	66	
Rice-fish culture systems	71	
Integrating young ducks in newly transplanted rice	75	
The role of livestock in highland rice farming	78	
-		

Seeds and Seedlings

Rice seed selection methods in the highlands	83
Strategies in sustaining rice seed production	
and distribution in the Cordillera region	85
Seedbed preparation and management	89
Preparation of the rice terraces for planting in Banaue, Ifugao	91
The Malagasy early transplanting technique	96
Traditional rice establishment and management practices	
in the Cordillera highland	99
Call Facility Management	
Soil Fertility Management	
Improving soil fertility and land productivity	105
Waste recycling in Mt. Province	111
Azolla utillization in the rice fields of Cordillera	112
Azolla as fertilizer in the terraces: the tatluhan	
and dalawahan methods	114
Azolla as compost	116
Azolla as feed for swine, poultry and fish	119
Wild sunflower utilization in the rice terraces	122
Fbuloj (Acalypha argatensis) utilization in	
irrigated rice paddies: a traditional practice	124
Rice straw management	126
Management of zinc-deficiency problem in wetland rice	128
Water Management	
Tracer Franciscon	
Intermittent irrigation: a new approach to a	
better water management	135
Indigenous irrigation systems in the Cordillera	137

Pest Management

Earthworms in the Ifugao rice terraces	143			
Rodent biology and ecology Rat management strategies in highland rice of the Cordillera Golden apple snail management (<i>Pomacea caniculata</i>) Management of the rice bugs Indigenous control of ricebirds				
			Rice stem borers	163
			Managing leaffolder pests	166
			Indigenous weed management	169
			Ethnobotany of useful plants for rice production in the Cordillera	172
Farm Mechanization				
Mechanizing land preparation using the microtiller	179			
Harvest and Post Harvest Practices and Processing				
- There is a man to set that vest in a circle such a rocessing				
Indigenous rice harvest and post harvest practices	185			
Rice wine and some indigenous rice food products	190			
Rice farming rituals in the Cordillera				
3				
Extension Approaches				
Farmer-leaders and change agents: partners in promoting				
rice farming innovations in the Cordillera	201			
Annexes				
Participants	207			
Production staff	210			
Project management team	213			
r roject management team	210			