



Hybrid Rice Commercialization in the Philippines¹



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INTRODUCTION

Hybrid Rice Commercialization Program

- The flagship program of the Department of Agriculture's (DA) GMA Rice Program

- Since 2002, the program aims to increase farm productivity and income through widespread promotion of the hybrid rice technology



Average prod'n. costs & returns (hybrid vs inbred)

- Farmers can double their income over inbred rice

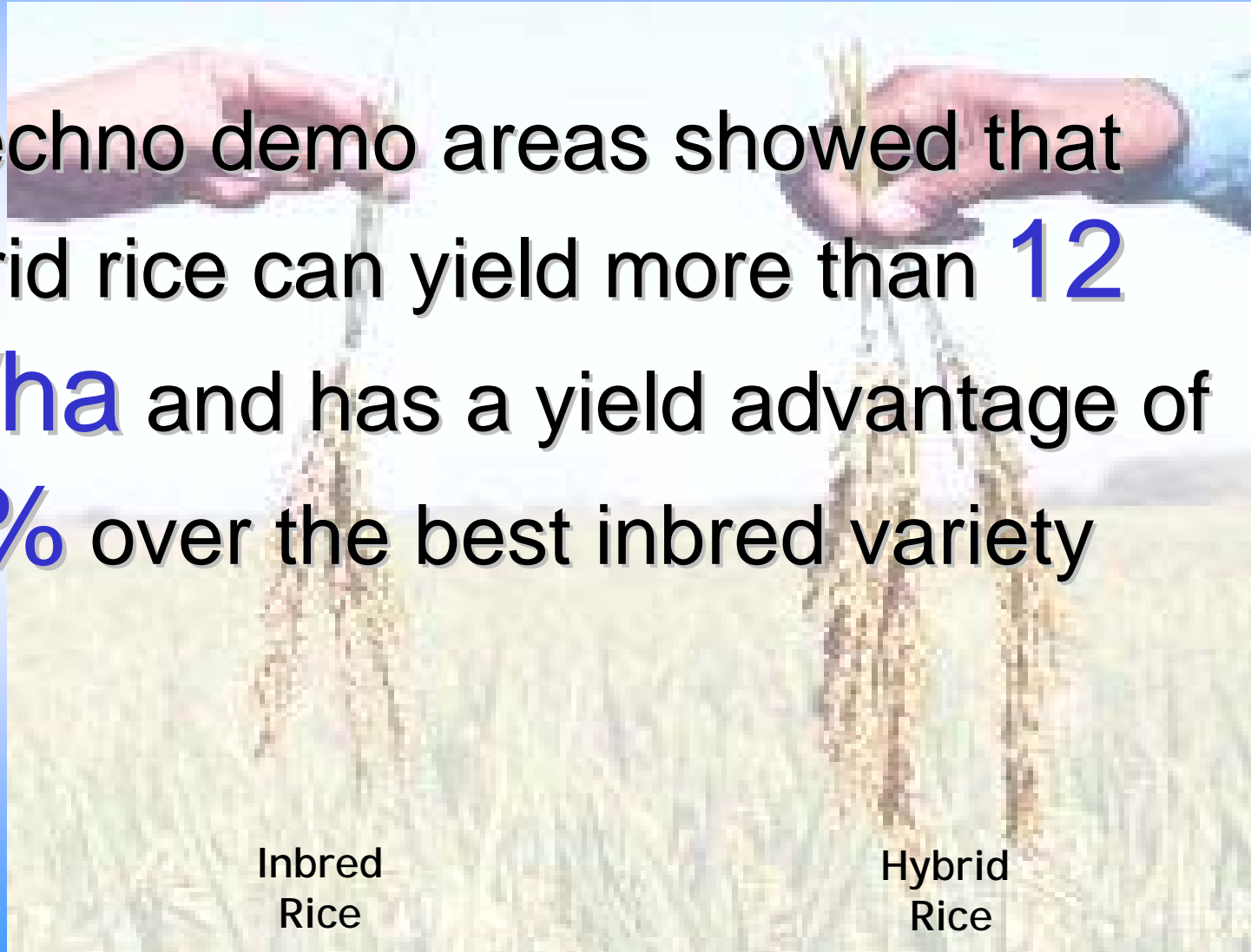
ITEM	Farmer's Home-Saved Seeds	Certified Seeds	Hybrid Seeds
CASH COSTS	10,194.00	10,494.00	13,453.00
NON-CASH COSTS	6,539.00	6,539.00	7,188.00
IMPUTED COSTS	6,511.00	6,511.00	6,748.00
TOTAL COSTS	23,244.00	23,544.00	27,389.00
GROSS RETURNS	29,790.80	40,443.00	60,050.00
RETURNS ABOVE CASH COST	19,596.80	29,949.00	46,597.00
RETURNS ABOVE CASH AND NON-CASH COST	13,057.80	23,410.00	39,409.00
NET RETURNS	6,546.80	16,899.00	32,661.00
NET PROFIT-COST RATIO	0.28	0.72	1.19
Cost per kg.	6.90	5.15	4.56
Yield per hectare (kg)	3,370.00	4,575.00	6,005.00
Farmgate price (peso/kg)	8.84	8.84	10.00

INTRODUCTION

- Techno demo areas showed that hybrid rice can yield more than **12 mt/ha** and has a yield advantage of **32%** over the best inbred variety

Inbred
Rice

Hybrid
Rice



INTRODUCTION

High yields

NAME OF FARMER	PROVINCE	ACTUAL YIELD mt/ha.
Aida Badong	Camarines Sur	17.15
Eulogio Guirra, Sr.	Davao del Sur	14.52
Felino Garcia, Jr.	Nueva Ecija	13.30
Antonio Villanueva	Ilocos Sur	13.10

INTRODUCTION

- Increased hybrid rice areas raised levels of rice sufficiency to 85% and 86% in 2004 and 2005, respectively

- The program targets 500,000 to 600,000 ha to be planted to hybrid rice by 2009-2010

INTRODUCTION

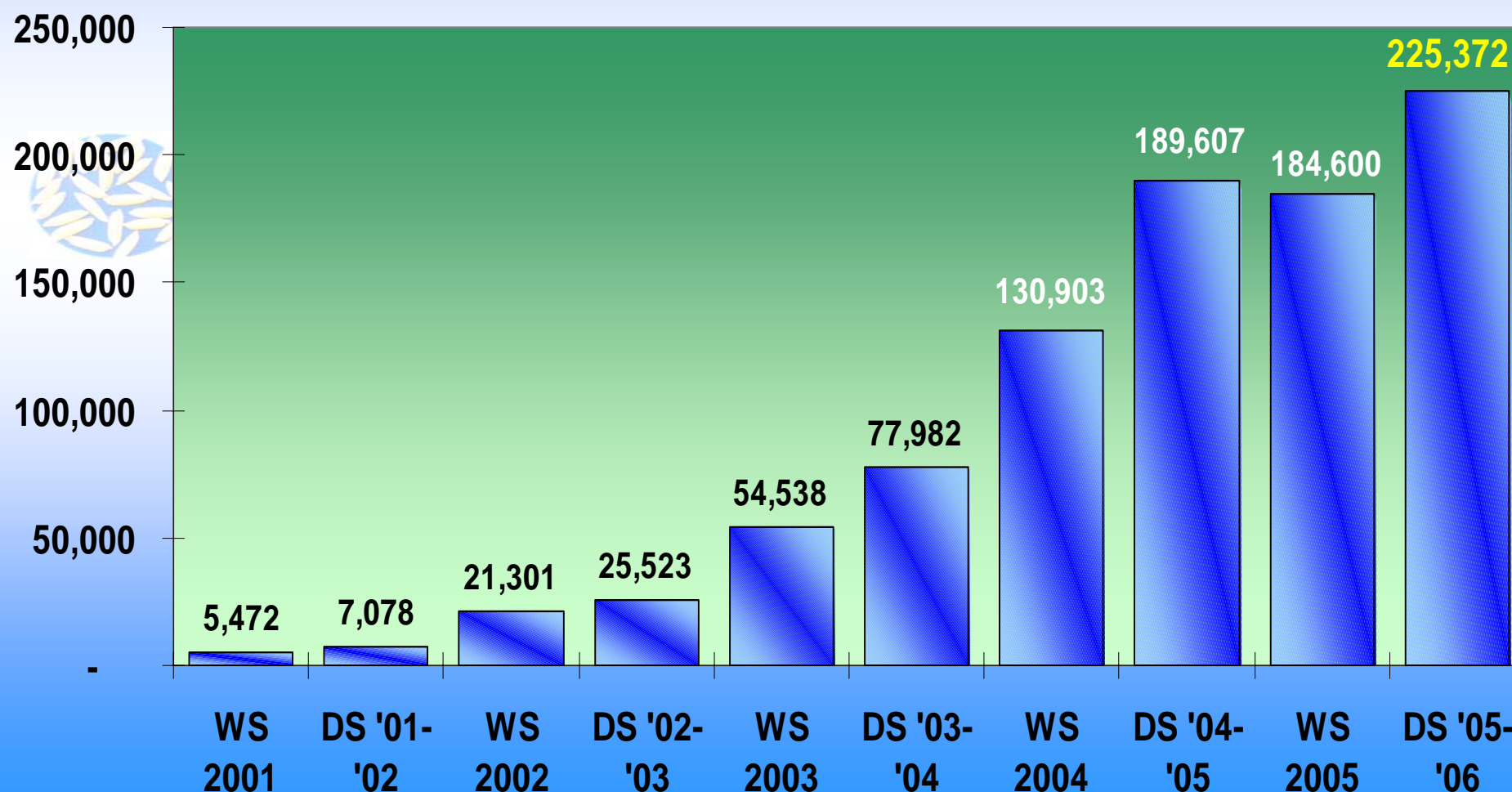
- The HRCP generated 85,266 jobs from 2002 to 2004

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- About 2.4 million local rice farmers have stable jobs in the field through HRCP

Source: Philippine Rice Research Institute (PhilRice) and STRIVE Foundation survey

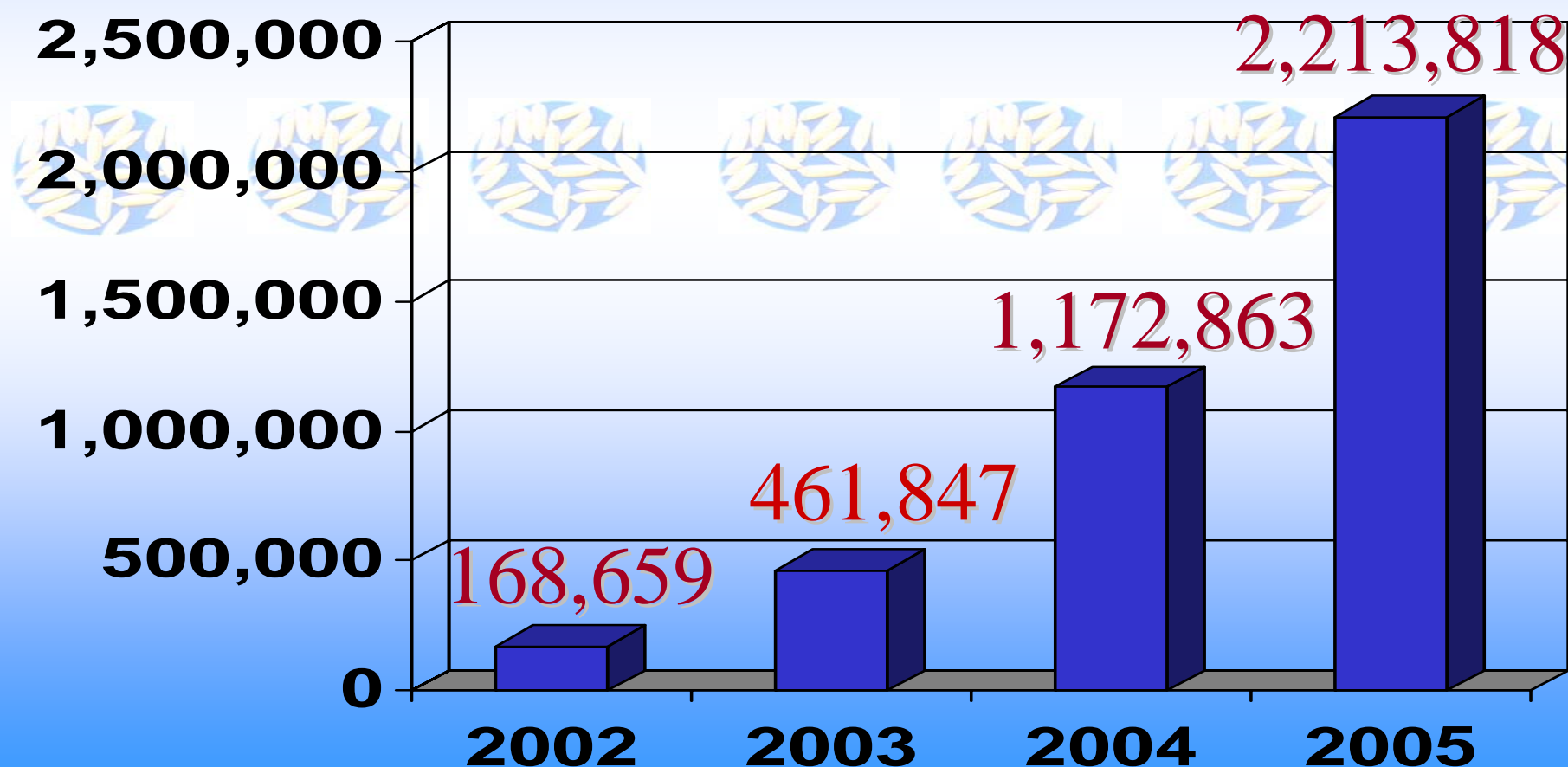
Hybrid rice commercial planting

- Area planted to hybrid rice has spirally increased from merely 5,472 ha in 2001 WS to 374,207 ha in 2005



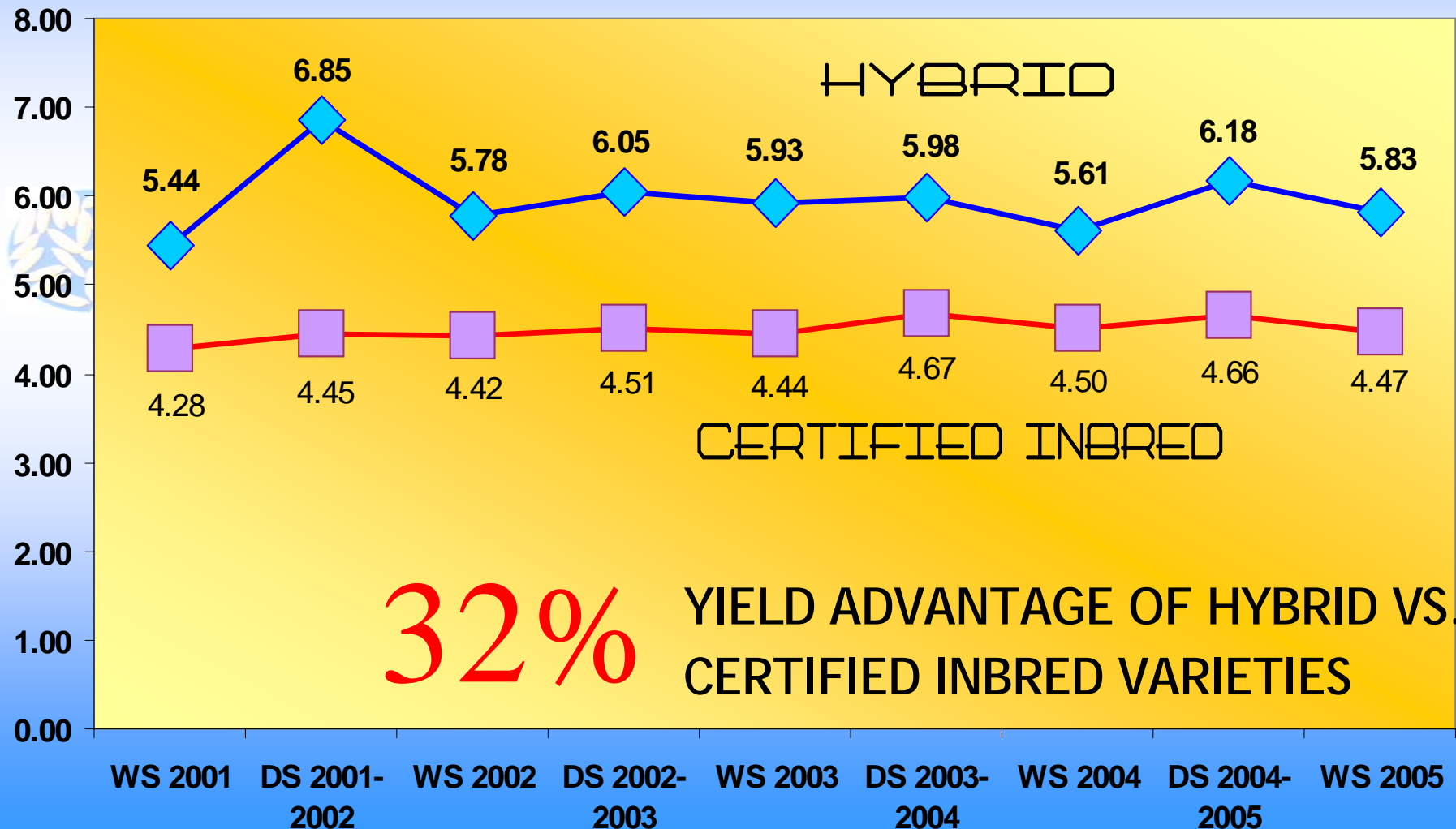
Hybrid rice commercial planting

- Production of commercial hybrid *palay* grew from 168,659 mt in 2002 to 2.21 M mt in 2005



Hybrid rice commercial planting

- Hybrid seeds had an average yield of 6.0 mt/ha from CY 2002 to 2005



Hybrid rice commercial planting

- HRCP increased the demand for hybrid rice among millers and consumers



- Promotion of hybrid rice also created greater awareness on other component technologies in rice production

Hybrid rice seed production

Technical & financial assistance

- Government initially trained organized seed growers in the production of public-bred hybrid seed varieties
- Seed growers were provided free seed parentals, GA₃, low volume sprayer, and advance payment of PhP10,000/ha (US\$200)
- Government gradually withdrew its production support starting 2004 DS as seed growers gained technical competence

Hybrid rice seed production

- As a result, hybrid seed production area increased from 0.2 ha in 1999 DS to 1,098 ha in 2005 WS, with the largest area of 2,654 ha recorded in 2005 DS



- Similarly, hybrid seed yield has improved from less than 100 kg/ha to 857 kg/ha in 2005 DS

Hybrid rice seed production

Competitive Seed Industry

- Private companies played a vital role in ensuring the viability of the hybrid seed market
- Strong seed growers' cooperatives were also able to compete with these companies and continued to produce and supply seeds of public hybrids
- Total area planted to hybrid:
 - Public sector hybrid seeds = 40%*
 - Private sector hybrid seeds = 60%*

Research and development

- Hybrid rice R&D has significantly advanced hybrid rice germplasm improvement and breeding



Research and development

- Progress has also been made in seed production technology, hybrid rice crop management, and development of appropriate machines for HRSP



Technology demonstration

Establishment of techno demo sites

- More than 300 techno demo sites were established nationwide during the early stages of the HRCPP to highlight the advantages of using hybrid seed over inbreds

Technology demonstration

- In Mindanao, a hybrid techno derby was launched in 2004 DS by the DA-RFUs in coordination with private companies and LGUs

- Similar activities were also conducted by the different RFUs in Luzon and the Visayas

Training and briefings

- More than 500,000 farmers, seed producers, extension workers, agricultural technologists, R&D personnel and policy makers were trained in hybrid rice cultivation from 2002 to 2005

Training and briefings

- Almost 3,000 farmers/seed growers also attended season-long and University Without Walls training to prepare them for their HRSP venture



- Training and briefings were conducted in collaboration with IRRI, PhilRice, ATI, DA-RFUs, LGUs, and private sector

Information campaign


- DA-PhilRice generated and distributed information campaign materials to the DA and LGUs across the country



- Hybrid rice news and success stories were featured regularly in the PhilRice website (www.philrice.gov.ph)


Impact of HRCP

PhilRice-STRIVE study

- In the five major hybrid rice-producing provinces, namely: Isabela, Nueva Ecija, Iloilo, Davao del Sur, and Davao del Norte, hybrid rice yielded more than inbred rice 
- Hybrid rice has a price advantage over the inbred by about 25 centavos/kg
- More hybrid farmers got a higher net income of PhP32,661/ha than the inbred farmers who got PhP16,899/ha

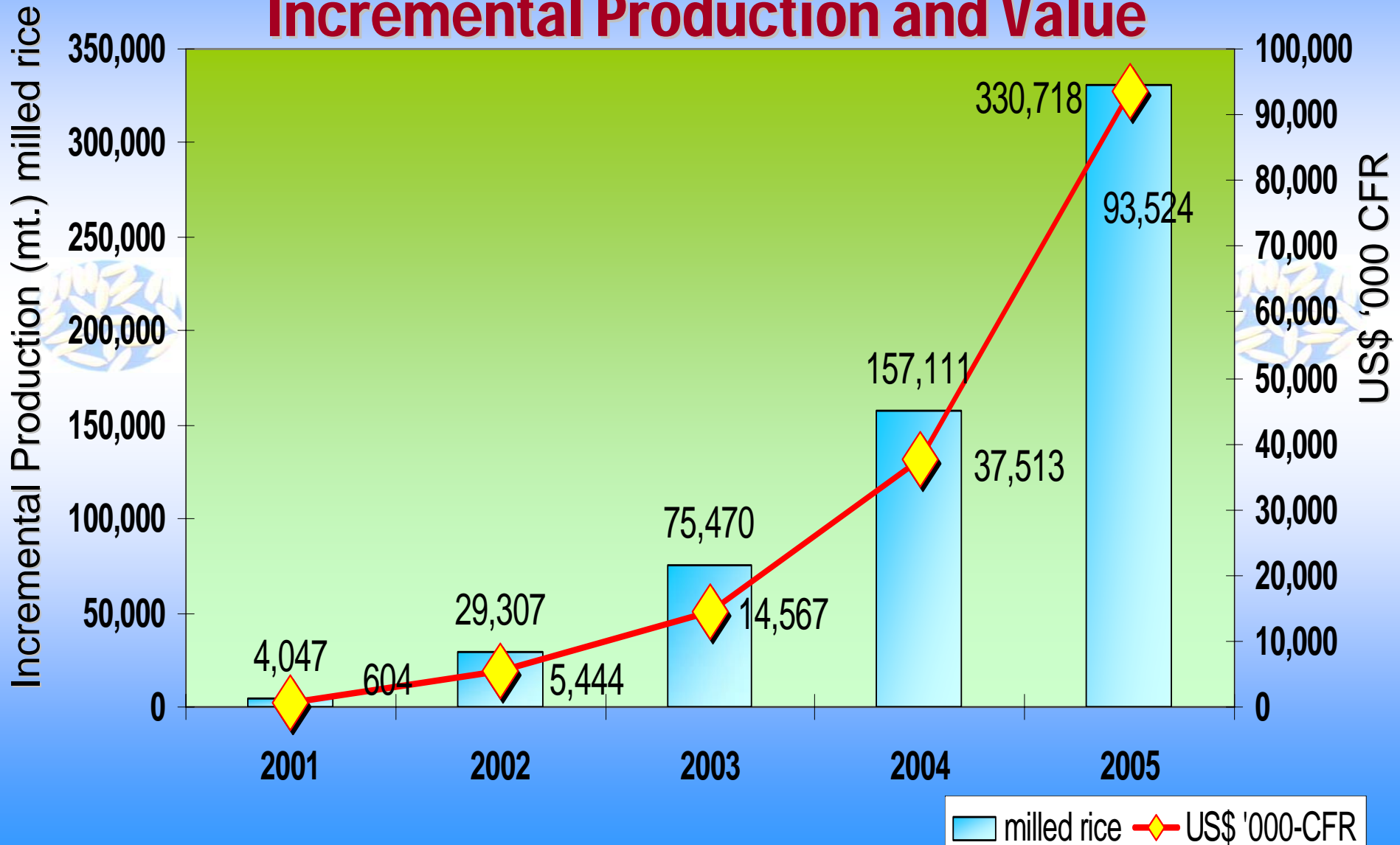
Impact of HRCP

PhilRice-STRIVE study

- Farmers start to plant 20-25 kg seeds per hectare, adopt synchronous and straight row planting, and the use organic fertilizers 
- The estimated financial and economic benefit-cost ratios of the HRCP are 1.56 and 1.13, respectively, from 2002 to 2009. This implies that the financial and economic benefits from the program outweigh its costs.

Impact of HRCP

Milled Hybrid Rice Incremental Production and Value



Future directions

- Further expansion of hybrid rice areas, through the clustering approach, would realize HRCP's goals of higher farmers' income and self-sufficiency
- Self-sufficiency would produce savings from rice importation, and an adequate supply of rice would give stable prices for consumers
- The Rice Program moves to create greater awareness among farmers, LGUs, and the private sector. Ultimately, the private sector will lead the commercialization of hybrid rice.

Future directions

- Through these efforts, farmers will continue to gain greater mastery of the technology and eventually lower production costs

- The Program currently conducts technical briefings and other trainings on hybrid seed production and cultivation

- The hybrid rice technology can significantly contribute to the economy and improve the way of living of Filipino farmers

SUMMARY AND RECOMMENDATIONS

- Despite unfavorable factors, it is still the best option to invest in hybrid rice cultivation in the Philippines
- Average yields have constantly been rising the past five years, which increased individual farmer's income
- These can be sustained through partnership between the public sector and private companies

SUMMARY AND RECOMMENDATIONS

- Private seed companies can make cultivation more attractive by assisting farmers from preproduction to postproduction activities to ensure increased productivity
- Other stakeholders' respective contributions would set not only the rice industry's direction towards self-sufficiency but could also transform the Filipino farmer from being a producer to an agricultural entrepreneur



**Thank You
Very Much!**

Have a RICE day!