

Table 1. Characteristics of USM corn open pollinated varieties (OPVs).

Parameters	USM Var 5	USM Var 6	USM Var 10	USM Var 14	USM var 16	USM Var 18
Yield (t/ha)	6.67	5.96	6.39	5.55	5-6	5.5
Plant height (cm)	232	205	206	214	211	225
Ear height (cm)	121	94	98	105	103	115
Ear length (cm)	ND	ND	ND	ND	15	14
Ear diameter (cm)	ND	ND	ND	ND	4.6	4.6
Days to silking (50%)	46	50	54	50	47	48
Days to taselling (50%)	44	48	52	48	45	46
Reaction to diseases						
Ear rot	ND	ND	ND	ND	R	R
Stalk rot	ND	ND	ND	ND	R	R

ND = no data  
 R = resistant

Table 2. Characteristics of USM corn hybrids.

Parameters	USM Hyb 402	USM Hyb 404
Yield (t/ha)	5.08	5.34
Plant height (cm)	202	204
Ear height (cm)	97	100
Days to silking (50%)	47	47
Days to taselling (50%)	45	45

Source: CARRDEC write-up, 2006.

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# High Yielding Corn OPVs and Hybrids





## Introduction

Corn (*Zea mays* L.) is the most important crop in the development of the livestock and poultry industries. About 60% of the total production is used as feed and 40% for food and other uses.



Mindanao contributes about 60% of the Philippines' total corn production amounting to 5.3 M t (million tons) (Sun Star, 2006). Corn is grown mostly in all 28 provinces of Mindanao, of which 84% comes from Central Mindanao (966,000 t), Northern Mindanao (935,000 t), and Autonomous Region in Muslim Mindanao (657,000 t).

In 2005, Mindanao produced 3.2 M t, or 0.46% higher compared to 3,153,636 t in 2004. Corn production in Central Mindanao even declined by 5.8%.

The decline is blamed on natural calamities such as drought and flashflood, corn plant hopper infestation, and the delayed planting in the first quarter. Another reason is the conversion of cornlands into other crops, like plantation crops specially in Southern Mindanao.

Therefore, efforts must be exerted to produce cheap domestic corn that is competitive with other imported products that use corn as raw material.

For the price of corn to be competitive, the cost of production must be reduced. One of the strategies to bring down the production cost is the use of high yielding varieties

with resistance to major pests and diseases. Hence, the University of Southern Mindanao (USM) continuously conducts research on development/improvement, production, and distribution of quality seeds.

USM's research aims to:

- develop/identify high yielding varieties adapted to the different regions in Luzon, Visayas, and Mindanao.
- identify/develop high yielding varieties with resistance to major pest and diseases.
- distribute quality seed to different seed growers, cooperatives, Department of Agriculture (DA), and corn farmers.

## Promising Corn Varieties

The USM Corn R&D Team has developed, and commercially released corn varieties such as the yellow and white: USM Var 1, 3, 5, 7, and 9 for yellow; and USM Var 2, 4, 6, 8, 10, 12, and 14 for white and two new white varieties USM Var 16 and 18 that have good yields with resistance to stalk rot and ear rot. The volume of quality seed produced is distributed to the seed growers, farmer cooperatives, DA, and corn farmers of the different regions of the country from CY 2000 to August 2006.

Out of 12 commercial OPVs, USM Var 10 is the most widely adoptable throughout the country and gave 60% share or P15M as of August 2006.



USM Var 5



USM Hy42



USM Var 10



USM Var 18