

ดังนั้นในการปรับปรุงพันธุ์ข้าวโพดลูกผสมคู่เพื่อเพิ่มผลผลิตสูงควรใช้พันธุ์
ลูกผสมเดี่ยว MSX9404 ผสมกับพันธุ์อื่น ๆ โดยพิจารณาคัดเลือกพันธุ์ลูกผสมคู่ที่มีลักษณะ
ผลผลิตต่อไร่ และลักษณะน้ำหนัก 100 เมล็ด ที่มีค่าสูง ทั้งนี้เพราะลักษณะดังกล่าวมีสห
สัมพันธ์ทางบวกกับลักษณะผลผลิต

ABSTRACT

Title | STUDY ON THE GENETIC CHARACTERS IN DOUBLE
 |CROSSED HYBRID CORN|
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Degree | Master of Science (Agronomy)|
Major field | Agronomy|
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This study on the genetic characters of 30 lines of double crossed hybrid corn and 6 single parental corn varieties was conducted in three locations: 1) Maejo University; 2) Mae Sa Mai Royal Project Station; and, 3) Rajamangkala Institute of Technology-Lampang Campus, under three conditions for early and late rainy season 1995 and dry season 1996.

The results showed that double crossed hybrid corn variety MDX9510 (MSX9403 x MSX9404) obtained the highest average of 10.97 percentage of heterosis for all seasons while the mean was indicated at 18.91, 7.79, and 3.98, respectively, for each season.

Among double crossed hybrid corn varieties, MDX9525 (MSX9404 x MSX9403) gave the highest average of 70.31 percentage of heritability for all condition with the mean of 40.49, 63.86 and 106.62 in rainy and dry season, respectively

The most outstanding varieties of single cross which produced the best General Combining Ability (GCA), MSX9404 single crossed variety gave the highest mean of 97.81 gram/plant due to additive gene action and non-additive gene action because

MSX9404 variety gave a superior performance in Specific Combining Ability (SCA) such as in early rainy season of MDX9507 (MSX9402 x MSX9404) with a mean of 69.27 gram/plant and MDX9528 (MSX9505 x MSX9404) which showed a mean of 87.05 gram/plant in late rainy season of 1995, while MDX9529 (MSX9406 x MSX9404) gave a mean of 190.02 gram/plant in dry season 1996.

Therefore, in the improvement of corn variety to increase the yield by using single hybrid MSX9404 with other varieties, there has to be a selection of characters in yield per pod and 100 seed-weight since these characters have positive correlation to the yield.