

Breeding of a dent maize inbred line, "Ho57" and its Characteristics

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Summary

A new inbred line, "Ho57", was developed as a parental line of silage maize. Ho57 was registered as "Maize Norin Kou Oya 55" by the Japanese Ministry of Agriculture, Forestry and Fisheries in 2002.

Ho57 was developed from Pioneer 3389, a hybrid introduced from the U.S. Sib-crossing among the F₁ plants was performed, and S₀ seeds were obtained in 1986. Beginning with the S₀ line and continuing through to the S₆ generation, the inbred line was developed by selection and self-pollination in an ear-to-row system. Selection was made for improving the resistance to lodging and for improving ear performance.

Ho57 is classified into the extremely late maturing group in Hokkaido. Its level of lodging resistance is high. Its resistance to northern corn leaf blight (*Setosphaeria turcica*) and southern corn leaf blight (*Cochliobolus heterostrophus*) is weak, but it has strong resistance to common smut (*Ustilago maydis*). The early growth of Ho57 is relatively good. Ho57 has a long and relatively thin stalk and medium ear height. The ear is long and rela-

tively thin and has nearly 12 rows. The seed yield of Ho57 is high and its degree of pollen shedding is medium. Ho57 shows high combining ability with flint inbred lines. A new single cross hybrid cultivar, "Ohzora", was developed using Ho57 as seed parent.

Key words: maize, inbred line, dent, lodging resistance, seed yield, combining ability

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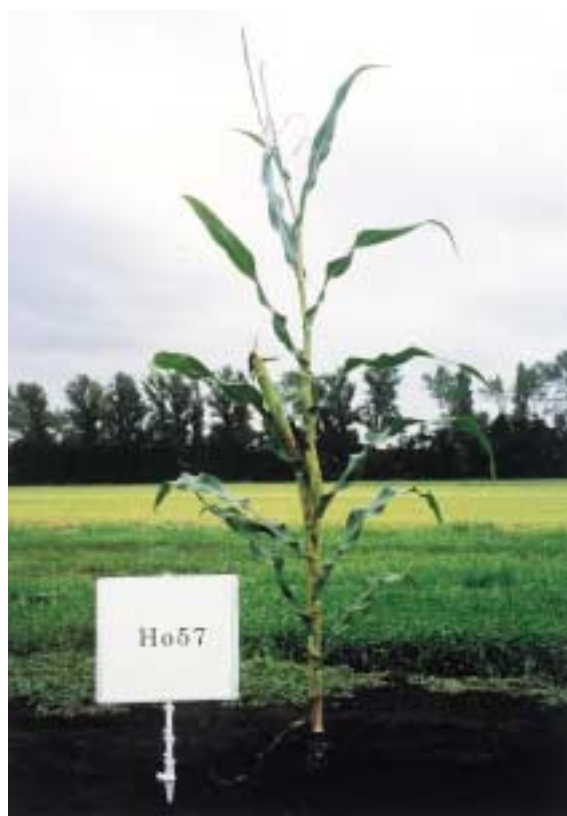


写真1 「H o 57」の草姿
(2000年9月9日撮影)



写真2 「H o 57」の雌穂および粒
(2001年1月18日撮影)