070. DRYING MAIZE SEED USING AMBIENT TEMPERATURE AT LOW RELATIVE HUMIDITY. F.C. Krzyzanowski¹; S.H. West²; J. de B. França Neto¹ (¹Embrapa Soja, Caixa Postal 231, CEP 86001-970, Londrina-PR, e-mail: fck@cnpso.embrapa.br; ²University of Florida - Agronomy Department, P.O. Box 110770, 32611, Gainesville, FL, USA).

SUMMARY - Drying is a prerequisite to maintaining maize (*zea mays* L.) seed quality. New technologies are available and a dryer prototype has been developed that has the unique feature of taking the moisture out of the air stream before it is heated and passed through the seed. The heat that is generated when the water is removed is reintroduced into and raises the temperature of the air stream. In contrast to the 45°C temperature typical of conventional dryers, the temperature of the air stream in the new method does not exceed 35°C. No detrimental effects were observed on various parameters of maize seed physiological quality due to the drying conditions provided by the heat pipe technology. The time required for drying was reduced significantly compared to the traditional system of heated ambient air. The heat pipe system is a promising technology to be used for drying shelled seed.

Key Words: *Zea mays* L., drying, seed quality, heat pipe.

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