# **Evaluation of Sorghum Germplasm for Emergence in Cold Soil. (C08-kofoid114100-Poster)**

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## Abstract:

Cold tolerance, defined as the ability to germinate and emerge in cold soil, is an important trait for sorghum Sorghum bicolor (L.) Moench improvement. This study was conducted to evaluate 990 sorghum germplasm lines for their ability to germinate in sand at temperatures varying diurnally from 13 to 17C. Ten seeds of each genotype were planted at a 4 cm depth and the number of coleoptiles emerged was recorded on alternate days from 7 to 21 days after planting. Length of the first 2 emerged coleoptiles was measured at day 21. Results showed that 11% of the lines had first emergence within 15 days. Several sources had 50% or greater emergence on the first day they emerged. The best line had 90% emergence by day 21. Coleoptile length varied from 0.1 to 6.1 cm in the cold. New sources were identified for the traits days to emergence, percent emerged, and coleoptile growth in the cold. However, the difficulty of working with this trait was shown by the failure of 74% of the lines to emerge even 1 coleoptile within 21 days of planting.

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