

*Prosopis chilensis* is a plant highly tolerant to heat shock

MEDINA,

CARDEMIL,

At temperatures between 25 and 35°C, 100% of *Prosopis chilensis* seeds germinated within 24 h. At higher temperatures, the germination rate was reduced; at 50°C, seeds did not germinate. After germination at 25°C, the optimal temperature for seedling growth was 35°C and the seedlings did not grow at a temperature of 50°C. However, when germination was at 35°C, the optimal temperature for seedling growth was 40°C and some seedlings grew at 50°C, suggesting that thermotolerance was induced during seed germination at 35°C. Further thermotolerance can be induced in seedlings germinated at 35°C, by exposing them to 40°C for 2h. Under these conditions, seedlings exhibited increased growth rate at 45 and 50°C. Fluorography of SDS-polyacrylamide gel electrophoresis of the proteins synthesized and accumulated during 2 h at temperatures of 35, 40, 45 and 50°C in the presence of [<sup>35</sup>S]methionine revealed the expression of 11 proteins not detectable at 35°C. Most of the proteins present at 35°C also