Drying ability of date (Phoenix dactylifera L.) pulp cubes from three Algerian common varieties (Mech-Degla, Degla-Beida, and Frezza) were investigated. Drying process was carried out under partial vacuum (200mbar) at 60, 80, and 100 C. Compared to the Newton model, the Henderson and Pabis model better described drying kinetic of Mech-Degla and Frezza pulps at 60 and 80 C with a mean relative error (MRE) not higher than 6.07 % . The same model fits experimental data at 60 C for Degla-Beida (R 2 ¼ 0.988; MRE ¼ 6.07) as well as at 100 C for only Mech- Degla (R 2 >0.98, MRE ¼ 8.61 %)