Certified organic livestock production does not exist in Kenya, yet livestock forms an integral part of many organic farms due to their role in nutrient recycling. The purpose of this study was to identify the challenges of conversion to organic dairy production. 55 semi-structured interviews of smallholder farmers with dairy cattle and organically certified crop enterprises in Kiambu and Kajiado counties were conducted to explore and discuss the factors that hinder conversion of their dairy enterprises. The average age of the farmers was 52 years, 65% of them female. The farms averaged 3.8 acres, 87% privately owned, but skewed to the left with 75% of the respondent's farms owning less than 3.8 acres and thus unable to produce sufficient fodder for their cattle. Cattle were kept mainly (63.5%) to augment income obtained from organic crop production. Artificial insemination was the only method used for breeding. With more than 5 years of crop-dairy integration, 61% of the farmers had considered managing their livestock organically. However, lack of organic inputs to control pest and diseases (78%) and lack of organic feed (64%) were identified as the most important constraints and hindrance for converting to organic dairy production. Future prospects for integrated organic dairy production in smallholder production systems therefore depends on the availability of research based advice on sufficient organic feed, disease and pest control inputs under local conditions.