Abstract

Orange fruit wastes (OFW) can be an important by-product in the processing of fruit plants, which produce mainly manufactured juice and essential oils. Several chemical bromatological variables of both fresh and fermented OFW were investigated to characterize the nutritional and fermentative potential for silage making. Direct ensiling technology without using additives is an alternative method that can provide a well preserved forage for animal nutrition at low cost, but the alcohol content was comparatively high in relation with the water soluble carbohydrate content of the forage before ensiling. The aerobic deterioration of the laboratory silage samples occurred without the visible growth of mould over the surface of the end product during the aerobic stability test. The OFW leucaena silage showed high alcohol content. On the other hand, silage treatments with OFW plus 0,5 % urea and OFW-fish (2:1) have adequate chemical properties and can be recommended to farmers.

Keywords

orange fruit wastes, ensilage, chemical composition.