

ABSTRACT

All parts of *A. indica* (neem) and *R. communis* (castor) plants have mostly been used as natural remedies in the control and treatment of several ailments, control of pests and insects, animal feeds and production of industrial products globally. The seed oils of *A. indica* and *R. communis* are known to have antidiabetic, anti-helminthic, antifertility, antioxidant, antibacterial, anti-inflammatory, anti-cancer, insecticidal and mosquitocidal activity. This study reports for the first time the chemical composition of *A. indica* and *R. communis* seed oils from Marigat, Baringo County, Kenya. Seed oils of *A. indica* and *R. communis* were extracted from mature dried seeds through cold pressing and boiling respectively and chemical composition determined using Gas Chromatography (GC)-Mass Spectrometry (MS). The constituents of both seed oils were dominated by saturated and unsaturated fatty acids, cyclic esters and methyl esters. The predominant constituents of *R. communis* were (Z)-6-Octadecenoic acid (37.33%), Ricinoleic acid (30.22%) and 13-Hexyloxacyclotridec-10-en-2-one (26.67%) while those of *A. indica* were 2-hexyl-1-decanol (30.97%), Octadecanoic acid (29.69%) and Oxalic acid, 6-ethyloct-3-yl ethyl ester (15.55%). Oils contained Hexadecanoic acid and Octadecanoic acid which are used in the manufacture of several products such as candles, soaps, lotions, perfumes and cosmetics. Octadecenoic acid is important in control of human diseases and Ricinoleic acid in production of alkyd resins for surface coating and biofuel. From the results, *A. indica* and *R. communis* seed oils constituents have potential in the agricultural, industrial, comestics and pharmaceutical sectors but require further fractionation to isolate the bioactive compounds.