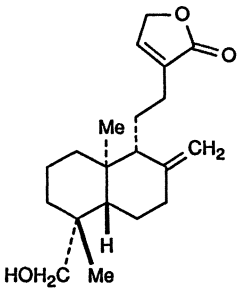
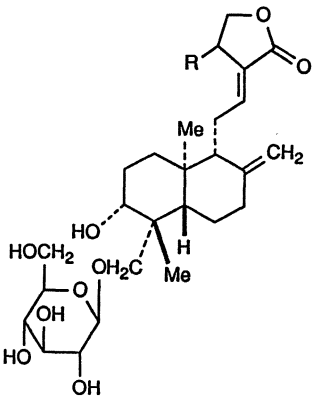
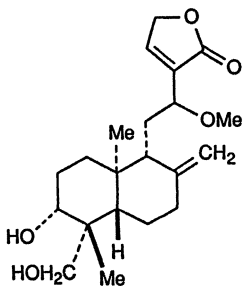


Dideoxy-andrographolide (*14-6*)
(Andrograpanin)



Andrographiside (*14-7*): R=OH
Deoxyandrographoside (*14-8*): R=H
(Ninandrographolide [12], Andropanoside)



Deoxy-methoxy-andrographolide (*14-9*)

The amount of andrographolide in leaves and stems of *A. paniculata* were quantitatively determined by UV spectrophotometry after separation on silica gel plates. The stem contained 0.1%–0.4% and the leaf 2.6% andrographolide as peak values when collected in October. Regional variation in the andrographolide content was also observed [13]. More important for the andrographolide content is the harvest season. The leaves contain more than 2% andrographolide before the plant blooms; afterwards the content decreases to less than 0.5%.

As a water soluble andrographolide derivative, the sodium bisulfite adduct was synthesized for medical use as an antipyretic agent. The structure was described on the basis of spectral data [14, 15].

Besides diterpene lactones, flavone derivatives such as oroxylin and wogonin were isolated from the leaves of *A. paniculata* [16]. The isolation of a new flavanone glycoside, andrographidine A (*14-10*), and flavone glycosides, andrographidine B, C, D, E, and F (*14-11–14-15*), having uncommon *O*-substitution pattern from the root of *A. paniculata* has also been reported [17].