

BRIEF COMMUNICATIONS

D-MANNITOL FROM *Lawsonia inermis*

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Previously, an oil with a delicate flower-like scent has been isolated from the flowers of *Lawsonia inermis* L. (henna) cultivated in Azerbaidzhan. It was reported that the bulk of the henna flowers is not used and forms a waste from the production of henna powder [1].

Continuing investigations into the wastes of this manufacture, from the plant raw material (flowers, roots, stems) we have isolated a polyhydric alcohol — D-mannitol.

On separating the substances from each plant organ using various organic solvents, we obtained the desired product with known properties [2-4]. When a concentrated alcoholic solution was kept at room temperature, a white precipitate deposited which, after recrystallization, had mp 165-166°C (from alcohol). The substance isolated was identified as D-mannitol from its IR spectrum and from the absence of a depression of a mixed melting point.

When the alcohol was acetylated with acetic anhydride, mannitol hexaacetate was obtained the IR spectrum and melting point (125-126°C) of which agreed completely with that of an authentic sample.

The amount of D-mannitol in the stems was considerably higher (0.77%) than in the other plant organs.

The simple technology and considerable reserves of raw material (more than 60% consists of stems) give grounds for assuming that the stems of henna (cultivated as an annual crop) may be a valuable source of D-mannitol.

LITERATURE CITED

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