One of prerequisites for studies on mimosine and DHP is a readily available supply of the pure compounds. Hegarty and Court (1964) reported technique using a dialysis tubing packed with Cation Exchange Resin for the isolation of mimosine from leucaena seeds. Hegarty et al. (1964) isolated DHP from the urine of sheep which had been fed leucaena but not degrading DHP. We have isolated mimosine and DHP from leucaena leaf and the method is reported here.

**Method for isolation of mimosine.** One kg of freshly harvested leucaena leaves was dipped in 10 litres of boiling water. Care was taken so that leucaena leaves remained intact and fresh to prevent conversion of mimosine to DHP. Boiling was continued for 10 minutes and the water extract was cooled to room temperature. The extract was passed through a resin bed packed in a 0.5 l separating funnel. Amberlite IRA 120 (technical grade) in the acid form was the resin used. The resin was washed with deionized water (1 l) and 80% ethanol (1.5 l). Mimosine was then eluted with 2N NH₄OH (1 l) and the solution was evaporated at 40°C using a rotary evaporator until a thick slurry was obtained. Mimosine was precipitated after adjusting the pH to 4.5 - 5.0 using 6N HCl and allowing this solution to cool in a refrigerator. Mimosine was recrystallized 5 times from ammonia solution with HCl. About 5 g of relatively pure mimosine (> 95%) was obtained by this technique. The method can also be adapted for dehulled leucaena seed.

**Method for isolation of DHP.** The younger leucaena leaves (from tip to leaf No. 4) were selected as they contain a higher amount of mimosine and more active mimosinase. One kg of freshly harvested leaf was homogenized with prewarmed (45°C) water (6 l.) and allowed to stand for at least 2 hrs to complete the conversion of mimosine to DHP. The slurry was boiled for a few minutes to coagulate protein, and then filtered through a piece of cloth. The filtrate was passed through a column of IRA 120 and the procedure as for mimosine isolation followed. DHP eluted from the resin was crystallized using absolute ethanol as suggested by Hegarty et al. (1964). The current technique is much simpler then previous techniques but it cannot be used for leucaena seed as it does not contain mimosinase.

**References:**
