

How to Prepare Herbal Plant Extract (aqueous and alcoholic)

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- [Animal Nutrition](#), [Basic Animal Nutrition](#), [Blog](#), [Poultry Nutrition](#)



The use of aqueous and alcoholic herb plant extracts in poultry positively affects birds' performance. These extracts are usually supplemented into drinking water and/or in feed. The improved productive performance of poultry in terms of better body weight, body weight gain, feed consumption, feed conversion ratio, low mortality rate, and high production with good economic index has been noted in several studies. Further, the improvement in antioxidant status was measured by malondialdehyde, glutathione, and catalase enzymes was also reported in poultry birds including broiler and layer birds.

How to prepare plant extracts?

- **Plant Material Preparation**

The plant must be collected in large quantities and then must be dried on aluminum foil. Care must be taken to avoid direct sunlight light. An airflow must be maintained and stir it every three hours to speed up the drying process. This process must be continued until complete drying. After that, dried plants must be stored in clean and tightly sealed bags and kept in a clean place at room temperature. Before extraction, the plants must be ground manually or an electric grinder must be used.

- **Aqueous Extraction Preparation**

10 grams of dried plant material powder may be immersed into distilled water and heat under low temperature (low heat) for about 2 hours. The mixture then be filtered through eight layers of muslin and centrifuged at 5000 rpm for 10 minutes. The supernatant be collected. This process must be done twice. After 6 hours, collect the supernatant at 2-hour intervals, pooled, and concentrated to provide a final amount of one-fourth the original volume. Thereafter, autoclaved at 121°C under 15 lb pressure and kept at 4°C (The detailed procedure can be checked with Parekh and Chanda, 2008).

Parekh, Jigna, and Sumitra V. Chanda. 2008. "Antibacterial Activity of Aqueous and Alcoholic Extracts of 34 Indian

Medicinal Plants against Some Staphylococcus Species.” Turkish Journal of Biology 32(1): 63–71.

<https://journals.tubitak.gov.tr/biology/vol32/iss1/10>.

- **Alcoholic Extract Preparation:**

- Dissolve 10 grams of dried plant material in 100 ml of Ethanol (an organic solvent) in a conical flask, and plug it with cotton. Then shaken at 190-220 rpm for 24 hours. Thereafter (after 24hrs) , filter it through eight layers of muslin cloth and then centrifuged at 5000 rpm for 10 minutes. Collect the supernatant evaporate the solvent to reduce the final volume to one-fourth of the original volume. Kept that in airtight bottles at 4 °C for further use (Parekh and Chanda, 2008).
- Parekh, Jigna, and Sumitra V. Chanda. 2008. “Antibacterial Activity of Aqueous and Alcoholic Extracts of 34 Indian Medicinal Plants against Some Staphylococcus Species.” Turkish Journal of Biology 32(1): 63–71.
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