2. AIMS AND OBJECTIVES

The present research aims at investigating the efficacy of gamma irradiation (at doses of 5kGy and 10kGy) on microbial load and medicinal quality of Ashwagandha and Kalmegh during 0, 6 and 12 months of storage at room temperature.

The objectives involved are:

- Collection and Authentication of Ashwagandha and Kalmegh.
- Gamma Irradiation of samples of Ashwagandha and Kalmegh at doses of 5kGy and 10kGy.
- Aqueous extraction of Ashwagandha and Kalmegh non-irradiated and gamma irradiated samples.
- Pharmacognostical evaluation of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh at 0, 6 and 12 months of storage.
- Physicochemical evaluation of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh at 0, 6 and 12 months of storage.
- Phytochemical evaluation of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh at 0, 6 and 12 months of storage.
- Pharmacological evaluation of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh.
- Toxicological evaluation of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh at 0, 6 and 12 months of storage.
- Microbiological analysis of non-irradiated and gamma irradiated samples of Ashwagandha and Kalmegh at 0, 6 and 12 months of storage.