**Title: ANTIFUNGAL ACTIVITY OF THE ESSENTIAL OIL OF *Baccharis trinervis* (Lam.) Pers. (ASTERACEAE) AGAINST DERMATOPHYTE *Trichophyton rubrum*.**

**Authors** SOBRINHO, A.C.N.[1], OLIVEIRA, S.S.[2], ALBUQUERQUE, M.R.J.R.[2], ROCHA, M.F.G.[3], FONTENELLE, R.O.S.[2]

**Institution** [1]Center for Science and Technology, State University of Ceará (Campus do Itaperi, 60740-903 Fortaleza-CE, Brazil), [2]Center for Agricultural Sciences and Biological Sciences, State University Vale do Acaraú (Campus da Betânia, 62040-370 Sobral-CE, Brazil), [3]Faculty of Veterinary, State University of Ceará (Campus do Itaperi, 60740-903 Fortaleza-CE, Brazil)

**Abstract:**

Dermatophytoses are among the most common diseases in the world, prevalent in tropical regions due to the temperature and humidity of the tropical climate propitiate an ideal habitat for its spread. The plants present with the great arsenal for prospecting natural products and Brazil has a prominent position. Brazil is the country with the greatest genetic diversity in the world, barn for chemical and biological prospecting studies of natural products. Therefore, research on the use of plants for the treatment of infectious diseases is required in order to investigate whether exhibit pharmacological or merely folk action. *Baccharis trinervis* (Lam.) Pers is a perennial shrubby species with little branching known popularly as "assapeixe-fino" and "assapeixe-branco". This study aimed to investigate the antifungal activity of the essential oil of *B. trinervis* against strains of dermatophytes fungi *Trichophyton rubrum*. The plant material was collected in the mountainous region of Meruoca in the State of Ceará and the essential oil was extracted by hydrodistillation method with use of the device type Clevenger. The tests on the antifungal activity of the essential oils were performed according to the standards of the Clinical and Laboratory Standards Institute – CLSI. Were used four strains of *T. rubrum* (CEMM 05-1-08, CEMM 05-1-034, LABMIC 6753, LABMIC 6212) to microdilution tests with MIC values between 0,31 mg/mL and 0,15 mg/mL. As a positive control was used the ketoconazole antifungal. The minimum fungicidal concentration for the four tested strains had values between 0.6 mg/mL and 0,31 mg/mL. The figures show an excellent inhibitory activity of growth for all strains tested, best result for strain *T. rubrum* CEMM 05-1-034. The *Baccharis* genus belonging to large family Asteraceae presented as chemotaxonomic markers the sesquiterpene lactones, compounds indicative of antimicrobial activity besides as being rich in mono- and sesquiterpenes. Further studies should be developed testing the essential oil against other pathogens microorganisms, as investigating the possible mechanism of action.

**Keywords:** *Baccharis trinervis* (Lam.) Pers, *Tricophyton rubrum*, essential oil, antifungal activity.

**Fomentation agency: CAPES**