



RESEARCH PAPER

Effect of age of the leaf and method of gel preparation on antioxidants and microbial count of aloe gel

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SUMMARY :

An experiment was conducted at College of Horticulture, Rajendranagar, Hyderabad during 2009 to study the effect of age of the leaf and method of gel preparation on antioxidants and microbial count of Aloe gel. The experiment was carried out in Completely Randomized Block Design with factorial concept with aloe leaves of four different ages and four methods of gel preparation, replicated thrice with three leaves per replication. Four age groups comprised 8 months, 10 months, 12 months and 14 months aged leaves. Similarly four methods of gel preparations were used comprising aloe leaf with skin with filtering, aloe leaf with skin without filtering, aloe leaf without skin with filtering and aloe leaf without skin without filtering which consisted of, total of 16 treatments. The results showed that among four age groups of aloe leaves, 14 months aged leaves recorded higher antioxidant activity (65.73% inhibition of peroxidation and 429.33% Thiobarbituric acid reactive substances) than the rest of the ages of leaves. Among the methods of gel preparation highest antioxidant activity was recorded with skin with filtering (48.35% inhibition of peroxidation and 453.42% Thiobarbituric acid reactive substances) than rest of the methods. Regarding the microbial count in Aloe gel microbial count was noticed in case of 8 months aged leaf recording less bacterial and yeast / mould count (4 and 3 cfu/ml). Higher microbial count was recorded with aloe gel obtained from 14 months aged leaf (12 and 6 cfu/ml). The lowest microbial count was noticed in case of method with skin and with filtering and highest microbial count with gel obtained through the method without skin and without filtering.

KEY WORDS : Antioxidant, Aloe gel , Microbial count

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