

Botanical Standardization of the Embeli Ribes Burmf & Possibilities of Species Substitute

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Abstract

EmbeliaribesBURM. F. is an important drug of Ayurveda. Which is considered as multi remedies *with wide* group of Active consistents.Isolated from the berries.Because of High Commerce, Traders, are subjected to 26 species of substitution, a detailed botanical investigation with macro microscopical comparison with the drug used under the name of VIDANGA.Therefore the present study is an attempt to establish macro Microscopic characteristic of E.R. as well as to Distinguish the species in Chart.

Index terms—

1 Botanical Standardization of the Embeli Ribes

Burmf & Possibilities of Species Substitute Syed Asadulla ? , Ramandang ? & Rajasekharan ? Embeliaribes-BURM. F. is an important drug of Ayurveda. Which is considered as multi remedies *with wide* group of Active consistents.Isolated from the berries.

Because of High Commerce, Traders, are subjected to 26 species of substitution, a detailed botanical investigation with macro & microscopical comparison with the drug used under the name of VIDANGA.

Therefore the present study is an attempt to establish macro & Microscopic characteristic of E.R. as well as to Distinguish the species in Chart. Great emphasis is laid on the most diagnostic characters by which each parts of the plant was identified particularly with the macro biological group to which is belongs as in Table ??o.1, of fruit collection and genuine and substitution (Table ??o. 2) which gives the value in distinguishing features between species of fruits(berries). As the leaf is first cleared in the solution of Chloral hydrate & lignification was established by the reaction with solution of phloroglucinol followed by a concentrated Hydrochloric acid (C-HCL) to detect the presence of lignin &also mounted for powder microscopy for fruit in dry condition.

The respective photographs were taken with nokiamera and measurements were taken with camera lucida support and recorded.

IV.

2 Anatomy

Stem -TS of fresh stem shows a circular outline, with a single layer of epidermis covered with a thin cuticle, numerous lenticels, Below the epidermis 2-5 rows of collenchymatous cortical tissue is present and rest of the cortex is parenchymatous containing numerous simple and occasionally oleoresin cells along with compound starch grains & patches of lignified fibers present at fairly regular intervals towards inner cortex, the vascular bundles, cambium, uniseriate medullary rays and pith is seen.

Petiole -TS of petiole is nearly circular in outline with a depression on the adaxial side, a thick wall epidermis, several well developed layers of collenchymas are present beneath the upper epidermis and a sheath of ground tissue, but only 2 to 3 layers on Abaxial side.

Ground tissue is parenchymatous, vascular tissue forms an arc that has widely spaced bundles, a few small prismatic crystals of calcium oxalate are present in the ground tissue. Detection of various anatomical features

5 CONCLUSION

such as tracheids, trichomes, fibers, glands, cork, stomata, pollen grains etc provides important identification clues in leaf & fruits. ER and many of its species are recorded for their botanical characters in Table no.1 and 2.

EmbeliaribesBURM. F. botanical features deals with the pharmacognostical study of leaf and fruits.

VI.

3 Discussions

EmbeliaribesBURM.F. plant character is identified in FRLHT,Bangalore, and soil samples is submitted in GKVK,Soil sciences „ Bangalore. The results are awaiting and the Tissue culture study is carried out in I.I.H.R. Bangalore results are awaiting.

4 VII.

5 Conclusion

The present statement is to predict the leaf & fruit characters of EmbeliaribesBURM. F.

Thus it is concluded that the above statement can be validated and authenticated on the basis of their macro µscopical characters are the possibilities of substitutes.



Figure 1:

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Figure 2: Figure



Figure 3:



Figure 4: Figure 4 Fruits

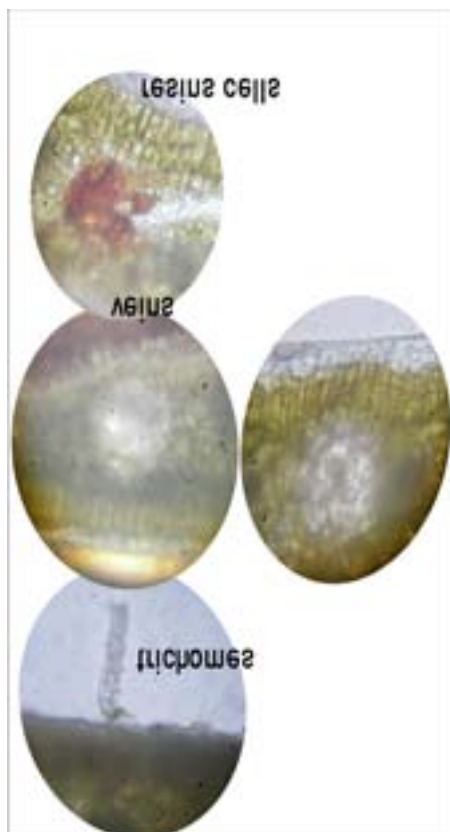


Figure 5:

Figure 6:

9. Sclereid layer of dark Brown of 2-3 layers which is tangentially elongated layer thickness ranges from 97.09 μ to 166.44 μ .
10. Epidermis of 5 to 12 layers thick walled narrow and axially elongated cells layer thickness ranges from 41.61 μ to 61.35 μ .
11. In fresh condition Arillus layer thickness ranges from 485.45 μ to 762.85 μ which is the layer of Testa is covered layer on the external side by thin transparent rectangularly elongated colourless cells or with collapsed parenchyma also
- 013 called as membranous Arillus, In dry condition the Arillus is modified into Testa layer modified into 2 rectangular fruit (Berries) which scales consist 24 mesocarp and endocarp on powder analysis the in number
- Year
- testa region shows a group of oleoresin cells and stone cells.
- (
-)
- B

Figure 7:

1

Serial No.	Regions	Cortex Colour	Testa Fracture	Longitudinal Stiations or Scaly markings	Special Features
01	Hubli	Ash Brown to green	Gradually Testais Erupted and few lines are seen.	22	Intermittent eruption in 30% of seeds
02	Hebsur	Brownish-Black with white patches	Testa is firmly attached	28	Few scaly eruption seen
03	AyurHubli	Brown Green	Calyx, Broken, in 30%	24	Not to be seen
04	Himalaya	Brownish Black	1% of Hemisphere Testa Breaks & 99% is safe	22	Nil
05	Kerala	Brownish red to Green	Testa is erupted in 50% of seeds	22	4-5
06	Rajasthan	Matte Ash -Brown	In half Hemisphere	Nil	Single Fracture
07	Fathepur	Reddish Brown	50% Testa is broken to powder	28 scales are found	Scaly depres-sion
08	FRHLT	Reddish Brown to Green	Testa is attached to the seed	24 scales are found	Scaly depres-sion
09	Hessarghat	Brownish Black	Testa is erupted to 25%	24	2 to 3
	AmrutKesari				

Figure 8: Table 1 :

2

Sl. No.	Drug Name	Authour Name	Source	Uses	Published	
01	Embeliaribes	China, LSL;	JLCH	Forest Research	Anthelmintic	Plant resources of South East Asia No. 12(1):
		van Valkenburg,	Institute	Malaysia,	Medicinal and poisonous plants 1; de Padua, L.S., Bunyaprapatsara, N & Lemmens, R.H.M.J. (eds); Paperback edition; Bogor, PROSEA	
					Foundation, 1999; p 257-258	
01a	Embeliaribes	China, fngut	Vo Van Chi	Vietnam(grows in	ripped fruits Treat	Vietnamese Medicinal Plants], Hanoi, Medicinal Publ. House 1997; p. 244.
		Tudien cay thuoc	waste	landhill	bitten by snack, earth	
			mountains)	worm, whites, cough and diar-rhoea.		
02	Embeliarobusta	China, (Vir	LSL; van			
	anga. Birang-i-kabuli,)	Valkenburg,				

Figure 9: Table 2 :

56 Remarks -The above nine varieties are identified and Published but the seeds are very similar in morphology
57 to EmbeliaribesBURM.f.