

MICROENCAPSULATED BER (*ZIZIPHUS*) JUICE POWDER

Salient features

- Optimized spray drying process enhances & retains the economic value of *Ziziphus*.
- Multifarious uses of *Ziziphus* powder for cosmetic, nutraceutical and food industries.
- Commercially viable powder with lowest water activity (0.295 ± 0.02), color ($L^* 88.52 \pm 0.70$, $a^* 1.13 \pm 0.49$, $b^* 12.25 \pm 0.62$),
- highest bioactive retention (vitamin C 14.56 ± 0.59 mg/100g, flavonoid content 388.00 ± 0.46 mg/100g) and their associated functional activity (antioxidant activity 1.89 ± 0.56 to 2.10 ± 0.50 /g).

Advantages

- Shelf life > 1 year
 - ✓ Ber fruit juice powder have a number of food applications
 - ✓ Rehydration as beverage mix
 - ✓ Without rehydration as food additive
 - ✓ Nutraceutical applications in bakery, coatings, dessert mixes, ice-creams, yoghurts, breakfast cereals, smoothies, fillings and ready meals.



Process

Technology /

Product

developed by

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Year

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MoFPI

*More
information*

Status of commercialization / Patent / Publications: Under Process

Publications:

- ❖ Soma Srivastava, Mrigya Bansal, Dilip Jain, Yashi Srivastava. (2022). Encapsulation for efficient spray drying of fruit juices with bioactive retention. *Journal of Food Measurement and Characterization* (2022) 16:3792–3814. <https://doi.org/10.1007/s11694-022-01481-4>
- ❖ Soma Srivastava. 2022. Development of microencapsulated pomegranate powder for higher retention of bioactives. In: abstracts. International Conference on Advances in Agriculture and Food System (AAFS-2022) towards Sustainable Development Goals at University of Agricultural Sciences, Bangalore

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