

United States Patent [19]

Bayerlein et al.

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[54] **METHOD FOR THE PREPARATION OF BORATE-CONTAINING, DISPERSIBLE, WATER-SOLUBLE POLYGALACTOMANNANS**

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[30] **Foreign Application Priority Data**

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[51] Int. Cl.⁴ **C08B 37/00; C07H 1/00**

[52] U.S. Cl. **536/17.1; 536/18.3; 536/18.5; 536/114; 536/121**

[58] Field of Search **536/114, 121, 17.1, 536/18.5, 18.3, 114, 121**

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[57] **ABSTRACT**

Method for preparation of dispersible, water-soluble polygalactomannans and polygalactomannan derivatives by crosslinking with borate ions, in which the polygalactomannan-containing endosperm of legumes is allowed to soak in an aqueous alkaline solution of a material containing borate ions in which the concentration of the borate ions, expressed as borax, is between 0.001 and 0.09 wt % and the hydroxyl ion concentration, expressed as NaOH, is between 0.2 and 10 wt % of the polygalactomannan and after taking up the solution, the cell structure of the splits is mechanically destroyed using high shear forces in a flaking, crushing or extruder process and then the product of the process is dried and ground in known fashion.

6 Claims, No Drawings