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Properties of sugar beet pulp pectin: A systemic review

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Abstract : Sugar beet pulp, a major by-product of the sugar industry, is a common feed component in cattle diets that is preserved on-farm as silage. Sugar-beet (*Beta vulgaris* L.) pectins can be obtained from sugar-beet pulp, a residue of the sugar processing industry. Compared to other pectins obtained from other sources, like citrus, apple and sunflower pectins, sugar-beet pectins have the advantage that the raw material is already dried and does not depend on stationality. Sugar-beet pulp is sold as animal feed at very low prices and is readily available for revalorization. Sugar beet pectins have however poor gelling properties under the usual conditions, which have been ascribed to a relatively low molar mass, high degree of acetylation (DA) or a high amount of side chains. The presence of ferulic acid ester-linked to the arabinose and galactose residues of the side chains can, however, be used for chemical cross-linking of pectins, leading to gel formation. Sugar-beet pectins could be used as an efficient biosorbent for the treatment and recovery of Cu, Pb and Cd from wastewater.
Key words: Sugar beet, Pectin, Ethanol, D-galactose.

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