BUSINESS CONSULTANTS

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POLYHYDROXYALKANOATES (PHAS) AS CHEESE COATINGS

STRATEGIES TO GROW YOUR BUSINESS

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In this case study, a specialist ingredients company engaged CPL Business Consultants to investigate the potential of polyhydroxyalkanoates (PHAs) as cheese coatings. CPL's comprehensive report included market insights and strategic recommendations based on the potential for PHAs in this market.

The objective of this study was to assist the client in the development and potential production of a paraffin wax substitute for cheese coating with functionalities beyond those of PVA. The alternative coatings are based on polyhydroxyalkanoates (PHA), of which one example is the biopolymer polyhydroxybutyrate (PHB).

Possibilities exist for further development of PHA coatings into substitutes for cheese wax, currently paraffin. Paraffin has advantages as a final coating for cheese; it has disadvantages in terms of its sealing of the cheese, after which no ripening is possible or occurs, it is hard to label, the cheese needs to be kept cool in storage, or the wax softens, the wax is thought hard to handle, and it may have a 'bad image' due to the presence of benzene.

Questions addressed included:

1. Is PHA ever likely to be able to compete with paraffin on cost?
2. If paraffin is an ideal product now, will PHA's cost ever be low enough to compete on cost, and will its functionality be good enough to allow it to be used?
3. If paraffin is not ideal and there is some discontent with the product among the users of paraffin, how much is that discontent in cost terms – that is, how much more expensive can a PHA product be and still be bought by cheesemakers instead of paraffin.
4. Are the project objectives presently being discussed realistic in any serious way?
5. Are there other options for this work?

Click here for a PDF of the contents of the study, or look below for an outline.

POLYHYDROXYALKANOATES (PHAS) AS CHEESE COATINGS

Executive Summary

- Objective
- Background
- Method
- Principal Findings
    - Wax
    - Polyhydroxyalkanoates (PHAs)
    - Legislation
    - GMOs
    - Other alternative coatings
- Conclusions
- Recommendations

Cheese Waxes

- Description and Uses
- Overview of Benefits Versus Perceived Drawbacks

Cheese Coatings

- Descriptions and Uses
- Markets

Polyhydroxyalkanonates (PHAs)

- Description and Uses
- Historical Perspective
- Markets & Prices
- Partner of Interest
- Other Academics/Commercial Institutions Involved in Production/Research of PHAs

Legislation

- Overview
- Wax
- Legislation of Food Contact materials
- Coatings
- Waxes – EU Food Contact Legislation – Framework, Plastics, Paper and Board
- Polyhydroxyalkanoates (PHAs)
- GMOs

Alternative Coatings/Food Packaging

Other Research in the Area

Contact Reports

- 33 Cheese Producers
- 19 Wax/Wax Ingredient Producers
- 1 Legislation Contact
- 15 Other Academics/Commercial Institutions Involved in Production/Research of PHAs
- 7 Alternative Coating Ingredients/Biodegradable Food Packages
- 3 Others

Appendix

- US Polyhydroxyalkanoate Patents
- US Alternative Coatings Patents
- EU Cheese Coatings Patents

5 Tables

In addition to working on polyhydroxyalkanoates (PHAs) as cheese coatings CPL has also worked on strategy for a cheese ingredient manufacturer and polymer films for cheese. For information about CPL Business Consultants, have a look at our PowerPoint Introduction and Brochure describing deliverables, differentiators and case studies. You can also review eight case studies.