

1. Identification:

Title: Use of edible and biodegradable coatings in fresh and minimally processed fruits.

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2. Introduction: The use of edible coatings in food products has increased because it offers several advantages as being biodegradable and extend the shelf-life. Embrapa Food Technology started this research by evaluating edible films in whole fruits (green coconut, guava) and fresh cut products (pineapple, melon, mango and palm tree). The determination of permeability, thermal and mechanical properties may indicate the best material to be used in specific product and it is been determined at UFRJ. Treated fruits and vegetables can be evaluated on its sensorial, microbiological, chemical, biochemical and physical attributes, shelf-life and its respiration rates by researches of Embrapa.

3. State of the art: The application of edible films in fruits and vegetables has been pointed as a low cost technique. Therefore it can be used for small agroindustries. Researchers are been developed aiming at the synthesis of new materials for degradable packing able to keep the product quality.

4. The trends of this research: The ability of edible films to decrease moisture content loss, respiration rates, aromas and solute transport may be improved by including additives such as antioxidants, antimicrobials, colorants, flavours, fortifying nutrients and spices in film formulation. Brazil has a wide diversity of plants with bioactive molecules. These molecules can be extracted and applied in coatings and packings, increasing the shelf life of fresh and processed products.