

Environmentally friendly water-resistant fruit bag coated with by-product wax

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In this paper the mixture(wax B) of by-product wax and imported commercial wax was suggested to replace the imported commercial wax(wax A) as the coating agent of fruit bag. The results of the measurements of the dynamic contact angles indicated that both wax A- and wax B-coated paper showed generally the similar hydrophobic or water-resistant property each other even though the results of the measurements of the surface tension, which may be converted into the static contact angle, indicated that both wax B-coated papers and n-propanol-added wax A-coated paper showed the similar water resistant or hydrophobic property, which was the less than that for the wax-A coated paper. Those experimental results of the surface tension were consistent to (1) that the saturated tensile strength of the wax-B coated sample submerged in water was less by 33% than that of wax-A coated sample submerged in water and (2) that the porously penetrated wax B-clots were more smoothly spread into the fibrous pore structure of the paper like n-propanol-added wax A than the porously penetrated wax A-clots.