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## **A REVIEW: INTERACTION OF STARCH/ NON-STARCH HYDROCOLLOID BLENDING AND THE RECENT FOOD APPLICATIONS**

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### **ABSTRACT**

Starch is one of the most abundant polysaccharides mainly obtained from cereals and tubers. It has been used since ages in food applications as thickening, binding, sweetening and emulsifying agent. It has been known as part of the main staples for few countries as well. The abundant production of starch has a bright future in sustainable food supply to the world. However, starch appeared to have some limitations of structural stability under extreme conditions of pH and shear. Besides, starch pasting and retrogradation properties are also resist its deliberate use in food products. Thus, blending with non-starch hydrocolloid gums is one of the ways to manipulate starch properties. Non-starch hydrocolloid gums are high molecular weight polymers, usually polysaccharides, which interact with starch and impart desired functionality to the resultant blend for oriented application. In this review, we summarized a number of studies regarding the properties and applications of starch mixture with non-starch hydrocolloids such as arabic gum, guar gum, xanthan gum, locust bean gum, gellan and pectin. Further, the interaction mechanism of starch with non-starch hydrocolloid and their applications in cereal based foods are also enlisted. Thus, the aim of this review is to provide data of some basic applications and recent usage trends of starch/ non-starch hydrocolloid blends in foods.

Keywords: *starch, pasting, hydrocolloid gums, blends, food application*

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