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Abstract
Partial substitution of wheat or rice starches with konjac flour (0, 0.5 and 1%) and soy protein isolate (SPI) (0, 5 and 10%) was carried out to determine their influences on freeze-thaw stability. The addition of konjac flour incorporated with SPI resulted in lower separated water or syneresis of native wheat and rice starches. The highest freeze-thaw stability of wheat starch was obtained by adding 0.5% konjac flour and 5% SPI on each freeze-thaw cycle throughout 4 cycles (1 cycle = 18 h storage at -20 ± 2°C followed by 6 h storage at 29 ± 2°C), while that with 0.5% konjac flour and 10% SPI was optimal for rice starch. The separated water reduction in both starches was decreased with increasing of freeze-thaw cycles, and the higher reduction was observed in wheat than rice starches on every each cycle. © 2009, INSInet Publication.

Author Keywords
Freeze-thaw stability; Konjac flour; Native starch; Soy protein isolate.

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