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[\[PDF \(724K\)\]](#) [\[References\]](#)**Anti-stress Effects of Flavonoids from Buckwheat Sprouts in Mice Subjected to Restraint Stress**[Mitsuru WATANABE](#)¹⁾ and [Jun AYUGASE](#)¹⁾*1) National Agricultural Research Center for Tohoku Region*

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We examined the effects of orally administered flavonoids isolated from buckwheat (*Fagopyrum esculentum* Moench) sprouts in restrained mice. These flavonoids have been shown to have antioxidant activities *in vitro*. A propylene glycol (PPG) or flavonoid (mixture of rutin, orientin, isorientin, vitexin, and isovitexin in PPG) solution (100 mg/kg body weight) was administered to mice intragastrically once per day for three days, after which the mice were restrained for 24 h. Unrestrained mice were administered PPG solution with or without free access to feed and water. Restraint stress induced increases in plasma corticosterone, plasma glutamic-oxaloacetic transaminase activity, and the amount of thiobarbituric acid-reactive substances in plasma and liver tissues. In contrast, these variables were suppressed in the mice that were administered flavonoids. These results suggest that flavonoids from buckwheat sprouts have *in vivo* anti-stress effects against the reactions induced by immobilization in mice.

Keywords: [buckwheat sprout](#), [flavonoid](#), [antioxidant activity](#), [restraint stress](#)[\[PDF \(724K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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