



## **Comparison of amylose and starch contents between awn seed and un-awn seed of upland rice (var. Pae Taw Gaw Bi) at Prachuap Khiri Khan Province**

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Seed of upland rice was found both awn seed and un-awn seed. The plant selection by cutting un-awn seed might lose some genetic plant varieties. Therefore, the aims of this work was to study and compare amylose and starch contents between awn and un-awn seed of upland rice in order to obtain the information for plant selection. Awn and un-awn seeds were selected from ten tillers of upland rice (var. Pae Taw Gaw Bi) derived from Pakagalyo farmers in Hua-Hin, Prachuap Khiri Khan Province. The seeds were analyzed for weight, color values ( $L^*$   $a^*$   $b^*$ ), size, amylose contents, resistant starch content, digestible starch content and total starch. The results showed that  $a^*$  and seed length of awn seed was higher than those of un-awn seed ( $p < 0.05$ ) but amylose and starch contents of awn seed and un-awn seed were not significant different ( $p > 0.05$ ). The upland rice from this study was regarded as a high amylose rice (28.15% for awn seed and 27.33% for un-awn seed). It had resistant starch (1.04% for awn seed and 1.15% for un-awn seed) which it could be an appropriate food for people who concern about their health, especially, for diabetic patients. Therefore, we conclude that the plant selection by cutting or keeping un-awn seed has no effect on the amylose and starch contents.

**Keywords:** Thai local rice; resistant starch; amylose; awn and un-awn seed