NUTRITIONAL VALUES OF *PSORALEA ESCULENTA*

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ABSTRACT

*Psoralea esculenta* (Indian breadroot, Tipsin, Scurfpea, Prairie turnip, Timpsula) is a member of the family Fabaceae. It is a perennial herb that flowers in May to early July. Indigenous to the Great Plains, it can be found growing on foothills, bluffs, upland and midland prairies and sometimes along roadsides. The prairie turnip has a deep taproot that is swollen in the middle and tapering at the ends. This tuber is used in a manner similar to a potato, but differs in taste and texture. The edible portion is covered with a coarse brown husk. Prairie turnips are valued by Native Americans as an important traditional food, and were and are a staple food source for Native Americans. They are gathered during flowering and the tuber can be eaten raw, dried and used in soups, or ground into a high quality flour. Prairie turnips were obtained from prairies in Brookings Co. and Shannon Co., SD. Turnips were ground using Pulverisette 19. with a 6 mm screen, followed by grinding in a Cyclotec 1093 Sample Mill (1 mm screen). This powder was tested for proteins, fat, fiber, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, selenium, sodium, starch, zinc, ash, moisture and nitrogen free extracts. The analyses showed the roots contain 53-70% starch and about 7.5% protein on a dry weight basis. *Psoralea* is also a good source of iron, zinc and magnesium. Available selenium varied by location, with the East River plants having <0.05 ppm Se, but the West River plants having almost 0.1 ppm Se, on a dry weight basis.