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Harouna, Difo Voukang

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Under-exploited wild *Vigna* species potentials in human and animal nutrition: A review

Difo Voukang Harouna, Pavithravani B. Venkataramana, Patrick A. Ndakidemi, Athanasia O. Matemu

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Abstract

Food insecurity, protein-energy malnutrition, and food-feed competition have motivated the search for alternative food and feed sources for human and animal nutrition. According to the FAO, only four crop species provide half of the plant-based calories in the human diet. This review, with an inquisitive focus on investigating alternative potential food and feed sources, has revealed that the *Vigna* genus (an important group of legumes) possesses more than a 100 species from which only 10 have been domesticated and are being given better attention. Thus, more than 90 species are still under-exploited despite their probable huge potential to alleviate food insecurity either by adding food varieties (domestication) or by providing information for breeding purposes. The review further demonstrates that the utilization of the wild *Vigna* species for both human food and animal feed is still very limited because of the unawareness of their potentials over some improved varieties which are facing challenges. An increased scientific effort towards exploring the potentials of wild legumes is recommended in planning the future food strategies.

Keywords

Wild *Vigna* species; Wild food crops; Wild legumes; Human nutrition; Animal nutrition; Wild *Vigna* genetic resources