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### **Pseudocereals and Millets**

**Pseudocereals:** There are few species of plants other than those of Poaceae, which produce small grains which have a similar grain chemical composition and used for food as in the case of cereals. These are termed as Pseudocereals. Buckwheat (*Fagopyrum esculentum*), grain amaranth (*Amaranthus* sp-Amaranthaceae), and Quina (*Chenopodium quinoa* - Chenopiawae) are considered under pseudocercals. There are certain botanically unrelated planes whose seeds are also used in a similar manner as that of cereals.

Pseudocereals possess similar calorific value as cereal grains. Nonetheless, they carry higher nutritional value than cereal grains in terms of quality of amino acid (protein) composition, antioxidants, vitamins and minerals. Pseudocereals made up of higher percentage of bran fraction to endosperm than common cereals.

#### **Millets:**

Millets are small grained cereals. The term millet is applied to a variety of small seeds, which are of minor importance as food. Millets are coarse seeded, annual cereal grasses used for food, feed and forage. The term '**coarse grains**' is also used to describe the millets. The millets are the staple food of the poor, the working classes and the farming community. The whole grain is used in soups, stews or as a cooked cereal, popped; roasted or sprouted grains. Millets contain no gluten and hence not suitable for making bread, but they are good for people who are gluten - intolerant.

However, the flour from the millets is blended in 15 to 40% with the refined wheat flour to prepare biscuits. The millets also provide substantial quantities of palatable fodder for cattle. Small millet grains are nutritionally rich. These grains are particularly low in phytic acid and rich in iron and calcium. The millets are classified into two groups viz., major millets and minor millets or small millets. The major millets are sorghum, pearl millet and finger millet in India. Small millets may be defined as millets cultivated for their small grains which are borne on short, slender grassy plants. The small millets also refer to a group of small - seeded cereal crops. Small millets may also be called minor millets. The important small millets grown in India are foxtail millet (*Setaria italica*), kodo millet (*Paspalum scrobiculatum*), common or proso millet (*Panicum miliaceum*), little millet (*Panicum sumatrense*) and barnyard millet (*Echinochloa colona*). Small millets grains are nutritionally rich in iron and calcium and low in phytic acid. They provide palatable fodder for cattle.

#### **Factors limiting of Pseudocereals and small millets productivity:**

Production of small millets is subject to wide fluctuations and the area is declining, except in the case of finger millet. The major constraints limiting small millets production are:

- These crops are often grown in uneven marginal lands, poor in fertility, shallow and gravelly, with low moisture retention capacity.
- These crops are grown under rainfed conditions in low rainfall arid regions.
- Improved crop management practices are not adopted by the farmers due to socio economic constraints.
- There is no organized program for production and supply of seeds of improved varieties.
- There is no ready market for the disposal of surplus produce at a remunerative price.
- There is lack of extension and development support.

#### **REFERENCES:**

1.	Principles of Agronomy	Ahlawat and Omprakash
2.	Principles of Agronomy	S.R. Raddy

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