

## Coix Seeds: Health and Medicinal Benefits

Mahdi Tajalifar\*

Department of Agriculture Engineering, University of Genetics and Plant Breeding, Iran

\*Corresponding author: Mahdi Tajalifar, Agriculture Engineer, Department of Agriculture Engineering, University of Genetics and Plant Breeding, Iran, Tel: 00982833367725; E-mail: mahdi.tajalifar01@gmail.com

Received date: February 02, 2018; Accepted date: July 23, 2018; Published date: August 06, 2018

Copyright: ©2018 Tajalifar M. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Abstract

Coix (also known as adlay, adlay millet or Job's tear) is a Chinese medicinal plant that grows across Asia and has been consumed in various forms for centuries. It is a tall grain-bearing perennial tropical plant belonging to the family Poaceae.

**Keywords** Common; Coix; Tropical; Poaceae; Tear

### Introduction

The entire coix plant and its seed pod has tear drop appearance, which is the English equivalent of the Latin species name (*Lacrima*=tear) [1]. There are two main varieties of the species; wild (*Coix lacryma jobi*) and the cultivated variety *Coix lacryma jobi* var. *ma-yuan*. [2].

Plant coix belongs to sub tribe Maydeae. Linnaeus gave the botanical name in 1753, relying upon an existing population. There are 2 types of Coix plant: nutritive and ornamental [2]. Seed of coix is used in salad and porridge. Seed coix is otherwise called as barley-coix because of its size and appearance with Barley. Plant coix is also like Maize plant. Coix may be both perennial and annual in nature [3]. The plant is widely used as nutritive forage and medicine. They also have a hole in the centre which makes them ideal for beading purposes [4].

This plant is weed in commercial rice fields. Seed of coix have 50% starch. The nutrient content is mentioned in **Table 1**.

Protein	15.4 g
Carbohydrate	65.3 g
Ca	25 mg
p	435 mg
Fe	5 mg
B1	0.28 mg
B2	0.19 mg
Niacin	4.3 mg

**Table 1:** Nutrient contents of coix per 100 g [5].

Job's tears are well known for its health benefits due to its rich antioxidant and high fibre content [4]. The Extract of the Coix plant is used in Chinese medicine for treatment of cancer [5]. Coix is suitable

for relieving muscle spasm and blood sugar regulations [6,7]. This plant is used for the treatment of abdominal bloating, constipation, diarrhoea and also has anti-allergic properties [8,9].

### Conclusion

This article presents a short review on the perspective of the health benefit of *Coix* plant. More research should be carried out to explore the therapeutic value of this plant.

### References

1. Xi XJ, Zhu YG, Tong YP, Yang XL, Tang NN, et al. (2016) Assessment of the genetic diversity of different Job's tears (*Coix lacryma-jobi* L.) Accessions and the active composition and anticancer effect of its seed oil. *PLoS ONE* 11: e0153269.
2. Bhavna P, Gopi P, Samir S, Shradha P (2017) A review: *Coix lacryma jobi* L. *J Pharmacognosy and Phytochem* 9: 248-252.
3. Ching-Chuan K, Huang-Hui C, Wenchang C (2012) Adlay (yì yì; "soft-shelled job's tears"; the seeds of *Coix lacryma-jobi* L. var. *ma-yuen* Stapf) is a Potential Cancer Chemopreventive Agent toward Multistage Carcinogenesis Processes. *J Tradit Complement Med* 2: 267-275.
4. Divya C, Rajinder K (2015) Formulation and phytochemical evaluation of nutritional product containing Job's tears (*Coix lacryma-Jobi* L.) *J Pharmacognosy and Phytochem* 4: 291-298.
5. Woo JH, Li D, Wilsbach K, Orita H, Coulter J, et al. (2007) Coix seed extract, a commonly used treatment for cancer in China, inhibits NFκB and protein kinase C signaling. *Cancer Biol Ther* 6: 2005-2011.
6. Oka Y, Miyazaki M (2001) Effect of Coix seed extract on muscle cramps in patients under hemodialysis. *Kampo Medicine*. 52: 173-177.
7. Yeh PH, Chiang W, Chiang MT (2006) Effects of dehulled adlay on plasma glucose and lipid concentrations in streptozotocin-induced diabetic rats fed a diet enriched in cholesterol. *Int J Vitam Nutr Res* 76: 299-305.
8. SR H, Yogendra K (2008) Herbal remedies among the Khasi traditional healers and village folks in Meghalaya. *Indian Journal of Traditional Knowledge* 7: 581-586.
9. Chen HJ, Lo YC, Chiang W (2012) Inhibitory effects of adlay bran (*Coix lacryma-jobi* L. var. *ma-yuen* Stapf) on chemical mediator release and cytokine production in rat basophilic leukemia cells. *J Ethnopharmacol* 141: 119-127.