MUNG BEANS ARE A SOURCE OF PROTEIN AND A HIGH ENERGY SOURCE.

Khaitov Javokhir Bakhodirovich[1]
[1]Department of Children, Adolescents and Food Hygiene Tashkent Medical Academy, Tashkent, Uzbekistan E-mail.javohirhayitov@mail.ru
Khakberdiev Khusan Raxmatulloyevich[2]
[2]Department of Children, Adolescents and Food Hygiene Tashkent Medical Academy, Tashkent, Uzbekistan E-mail husan.haqberiyev1985@gmail.com
Kamilova Aida Sheraliyevna[3]
[3]Department of Children, Adolescents and Food Hygiene Tashkent Medical Academy, Tashkent, Uzbekistan E-mail aida.kamilova1988@gmail.com
https://doi.org/10.5281/zenodo.7533291

Annotation. Based on the results of our own research, examination of scientific dossier materials and literature data, it was established that dry powder from the shoots of «Mungoltin» mung bean produced by «oriona-skorpion» LLC (Uzbekistan) contains a sufficient amount of protein, minerals, vitamins and dietary fiber, does not negative impact on the health status of experimental animals, does not have functional and material cumulation. Acute experiments on the establishment of medium-lethal lethal doses with intragastric administration of «Mungoltin» were carried out on 18 adult white male rats.
Keywords: natural-bio-shoots mung bean «Mungoltin»; cereal rice, nutritional and biological value.

The problems of maintaining and strengthening health, increasing human life expectancy have always been and continue to be among the most important and pressing issues in medicine and biology. Currently, the factor of healthy nutrition is recognized as one of the key components of the WHO general strategy, according to which 60% of the causes of mortality are directly related to nutrition problems.

The basis of all life on Earth is protein. Various forms of proteins take part in all processes occurring in living organisms. In the human body, proteins form muscles, ligaments, tendons, all organs and glands, hair, nails; proteins are part of fluids and bones. Enzymes and hormones that catalyze and regulate all processes in the body are also proteins. Lack of protein in the diet entails a delay in the overall development of children, their intelligence, and a decrease in immunity. A person with a weakened immune system does not resist infectious diseases, reduces the quality of life and, as a result, shortens life..

Mung bean is an excellent source of protein, and is a source of high energy food. «Mungoltin» powder from sprinkled mung bean comes directly from the nutrient-rich mung bean sprouts, which contains a large amount of vitamins, minerals, antioxidants and enzymes. Mung bean, as you know, is a source of vitamin A, E, as well as many rare B vitamins. It is also a low glycemic product. During the first few days of germination, the sprout is saturated with potential energy - the source of life necessary for seed growth. The sprout grows and ripens, concentrated energy increases. Mung bean sprouts germinate over a short period of time up to 3.8 cm and gather at the exact time when they are at the maximum level of nutritional value. At this point, in the sprout mung bean vitamins and minerals, as well as important phytochemical elements, are in a state of the most powerful force. After young shoots reach

this optimal level of development, they are harvested and dried at low temperatures for 8 hours. Drying at low temperatures is extremely important; living enzymes in the sprouts remain alive. At the end of the drying process, the sprouts are carefully crushed into a fine powder.

The ability to cumulate a food additive was studied by the Lim subchronic toxicity method under conditions of multiple intragastric administration to white rats. The experiments were conducted on white rats weighing 158.8 g. «Mungoltin» was injected intragastrically daily for 30 days at an initial dose of 100 mg kg, followed by an increase of 1.5 times every 5 days. The selected dose approximately corresponds to the average consumption of the mixture in one serving of powder.Control animals were injected with distilled water in an equivalent volume. In the course of the studies, such indicators of the functional state of animals as survival, general condition, animal activity, dynamics of body weight, morphological composition of peripheral blood and biochemical blood parameters were monitored.

During the experiment, the death of experimental animals was not observed. There were no clinical signs of intoxication during the period of the experiment. The body weight of the animals taken into the experiment did not significantly differ from the weight of the animals of the control group.

We have studied cumulative properties. The ability to cumulate the powder of shoots of mung bean has been studied by the method of sub-chronic toxicity according to Lim in the conditions of multiple intragastric administration to white rats. The experiments were conducted on 20 white rats weighing 158.8 g. «Mungoltin» was administered intragastrically daily for 30 days at an initial dose of 100 mg / kg, followed by an increase of 1.5 times every 5 days. The selected dose approximately corresponds to the average consumption of the mixture in one serving of powder. Control animals were injected with distilled water in an equivalent volume. In the course of the studies, such indicators of the functional state of animals as survival, general condition, animal activity, body weight dynamics, and the morphological composition of peripheral blood were monitored.

The studied biochemical blood parameters of experimental animals throughout the entire experiment were within physiological fluctuations (Table 9). As can be seen from the table, a study of the content of free sulfhydryl groups (SH- groups), which is an informative indicator of the activity of most respiratory enzymes, also did not reveal changes in this indicator in the experimental group relative to the control.

Macroscopic studies of the internal organs of rats showed no change. The animals are neat in appearance, the coat is shiny, there are no foci of baldness. Visible mucous membranes are pale pink, shiny, smooth. The mammary glands of females without compaction to the touch. The genitals of males are correctly expressed. The tails were somewhat brownish in color. Alveolar and bronchial apparatus of the lungs of usual structure. Moderate plethora. The vessels of the lungs were moderately full-blooded. The alveoles were filled with air. Edema or inflammation of the lung tissue is not marked. The size of the heart is within normal limits. In the cavities of the heart contains a small amount of liquid blood. The muscle of the heart is dense and brown in color. The stomach and small intestine without any pronounced changes. The stomach is filled with a small amount of solid food. The mucous membrane is shiny, folded, slightly pink in color. The mucosa of the small intestine is shiny, smooth, pink in color. The size and shape of the liver does not differ from the control. The surface of the liver is smooth. The capsule is thin, transparent. The lobular structure of the liver is preserved. The

kidneys are of normal size and shape, brown in color, dense, with a distinct cortical and medullary substance in the section.

Thus, pathomorphological studies confirm the harmlessness of dry powder from the shoots of mung bean «Mungoltin».

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