EMJ MS
EUROPEAN MULTIDISCIPLINARY JOURNAL OF MODERN SCIENCE
ISSN 2750-6274 https://emjms.academicjournal.io Volume: 25 | Dec-2023

Ryaska (Lemna Minor L.) Plant Cultivation and Use Prospects

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Abstract: V state predstavleny resultaty issledovaniy po vyrashchivaniyu rasteni ryaski v stochnyx vodakh i dobavleniyu ix v korm Manchurian perepelam. Considering environmental factors, optimal conditions are created for maximum growth of biomass. (Lemna L.)

Keywords: Small sludge, biomass, sewage waters, water warehouses, fishing, poultry, quail.

Enter. The ryaska family includes about 6 genera and more than 30 species found on all continents of the planet. Ryaska is most common in Europe, North and South America, Central Africa, southern Australia and South Asia. About half of the species grow in the tropics, and the rest in the temperate zone. The most common ryaska grass is small oryaska.

Ryaska, autotroph organisms as , people and animals for food of substances potential source as view need _ That's a lot nutritious plant _ Small ryaska grass chemical in the composition to spirulina looks like His dry in the article : raw protein - 35-38%, nitrogen-free extractive substances - 35%, fiber - up to 10.5 % , fat - up to 5% , mineral substances - up to 16% . With alfalfa in comparison, it is two even a lot calcium and three even a lot phosphorus own into takes _ Ryaska in the composition a lot amount trace elements (boron, iron, manganese, zinc, copper, cobalt, iodine and others), one series vitamins, that's it including carotene [1-3].

Ryaska wild and home animals and birds for natural food being service does _ He is human foods for guaranteed minerals, carotene and individual vitamins source as use can _ His own unique chemical composition, one series macro and to trace elements wealth, vitamin composition because of ryaska plant medicine plant recognized as _ and one series of diseases prevention get and in treatment wide is used [4-5].

Ryaska grass natural water from the basins wide spread _ His chemical composition and another features a lot in terms of water basins water environment to the composition depends it's full.

Current period artificial in the circumstances in water -mineral solutions cultivated and clean drink in the water from being washed then, raw or from dried after consumption to do ready has been ecological clean ryaska work is issued. Dried ryaska additives, spices structural part as or another components with without interference straight away use possible [3, 4].

Water of plants biological features learning separately interest wakes up

Theirs practical importance: technical and medicine raw material as village economy animals and phytophagous fish for feed, feed yeasts cultivation for substrate and are others. In this respect ryaska from grass (Lemna minor L.) and Lemna of his generation another from the representatives use separately attention have _

But now _ ryaska use village economy in practice enough it's not. This

of the plant chemical composition and food value enough level not knowing with explained.

us of our work purpose ryaska ecological and biochemical features learn from them village

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animals in feeding use opportunity in terms of analysis to do was

Small ryaska (Lemna minor) high of algae the most wide spread out from the representatives is one, it is sweet water of ecosystems water plant _

Small ryaska (Lemna minor) water in basins (ponds, ponds, water reservoirs, canals, rivers) growing free floating is hydrophytic .

Studies to us village economy of animals to feed addition as pool in agroecosystems public Cultivation for ryaska herbs recommendation to do enable will give. This is a plant high biological important to productivity nutritional to qualities, fast growth to the pace have and to the circumstances demanding it's not.

His raw material in the composition micro and macroelements, vitamins, proteins, fats, carbohydrates, klechatka fibers there is.

Tadaqqot object and methodology. Small ryaska (Lemna minor L.) ni Cultivation for we are farmer economy waste from the waters we used

Farmer from the farm came out waste to the waters small ryaska grass (Lemmaminor L.) is planted and its growth and development studied .

Experiments contamination level looking given 3 types of water option was conducted. The first option is from the farm received undiluted waste water _ The second option is a 3:1 ratio water pipe with water (VS). diluted waste water _ The third option is waste the water water pipe with water (VS) in a 1:1 ratio dilution own into takes _ Undiluted waste waters of the composition common indicators at a temperature of -27.0 ^{0} C, color dark brown, pH 6.2, smell strong - 5.0 points, pending substances - 154.0 mg/l, in water dissolved that oxygen is 2.0 mg/da was determined.

Cultivated ryaska biomass Manchuria breed quails to the diet adding his _ effect we learned

Research results analysis. In the climatic conditions of Uzbekistan, the first vegetation period of ryaska under natural conditions corresponds to the period from April to November. Ryaska's one vegetation during per hectare average 270-276 tons wet biomass or 20-23 tons dry biomass get can _

Ryaskani of biomass harvest to be intensity determination for we are one series experiences we spent

Har one 500 g of ryaska (Lemna minor L.) plant per container 10 days after sowing during growth , development and increase observed . Experiments during of water temperature 26-28 ^{0} C, light level and 15 - 20 thousand luxury around was. Try it last on the day ryaska grass (Lemna minor L.) biomass gathered and weighed .

Undiluted waste rinse in water (option 1). daily growth is 54.8 g / m ^{2} , in the 2nd option - 71.7, in the 3rd - 106.4 g / m ^{2} the organize did _

Studies that's it showed that ryaska plants Cultivation for the most optimal environment is option 3, that is on the ground water supply + water supply water in a 1:1 ratio.

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Table 1 Of small ryaska (Lemna minor L.). productivity

Variant	Experience At the end of ok _ biomass	Cool of biomass average daily growth	Experience At the end of cool of biomass increase (10 days)
	g / m2	g / m2	g / m2
OS 100%	1 1 75.3±3.5	5 4.8±1.3	4 73.2±2.1
OS 75%+25% VS	1 4 73.2±2.1	7 1.7±1.5	6 25.3±3.5
OS 50%+50% VS	1 6 67.6±4.9	1 0 6.4±2.4	11 0 37.6±2.6
OS 25%+75% VS	1 3 14.8±3.8	6 2.2±1.8	7 1 9.8±6.8

Explanation: OS- aqawa water, VS - tap water

We started feeding the biomass to the quails as an additional food from the age of 30 days.

20 quails taken for the experiment were divided into 2 groups-1-control; 2nd experimental group.

The quails in the experimental group were given wet biowassai of ryaska in addition to their usual food, at first 1 gram, and after 10 days 4 grams per head of quail.

The quails in the experimental group entered the eggs from the age of 70 days, and those in the control group entered the eggs at the age of 76 days. Biometric parameters of the obtained eggs were determined (Table 2).

Table 2 Egg biometrics

№	Egg weight according to	Control	Experience	Difference
1	**General weight (g)**	10.12 ± 0 , 12	12.14 ± 0.14	2.03 ± 0.03
2	**Egg flow weight (g)**	4.05 ± 0.05	6.06 ± 0.06	2.01 ± 0.01
3	**Egg of the yolk weight (g)**	4.04 ± 0.04	4.05 ± 0.05	0.01 ± 0.01
4	**Egg of the pod weight (g)**	2.03 ± 0.03	2.03 ± 0.03	-

As can be seen from the table, it was found that the total weight and white and yolk of the eggs obtained from quails of the experimental variant were slightly higher than the eggs of the control variant.

Conclusions

1. Small ryaska - Lemna minor L. ni waste in the waters to be cultivated can _
2. Ryaska Cultivation for more comfortable environment - in a 1:1 ratio waste water + plumbing water is biomass _ density to the season depending on 1 m ^{2} water surface from 500 to 700 g changed stands and every 3-4 days when assembled of biomass intensive accumulation is provided .
3. Additional food as ryaska consumption did experience in the group quails control to the group 6 days before the ratio to the egg entered and that the total weight and white and yolk, respectively, of the eggs obtained from quails of the experimental variant had a slightly higher index than the eggs of the control variant observed.

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