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#### ПОЛУЧЕНИЕ ИНУЛИНА ИЗ РАЗЛИЧНЫХ РАСТЕНИЙ

Е. Г. Багдасарян А. Г. Телунц Г. Е. Багдасарян

Статья посвящена выявлению количества инулина дикорастущих: лопух большой (Arctium lappa), цикорий дикий (Cichorium inthybus), одуванчик (Taraxacum officinale), спаржа (Asparagus officinalis), и культивируемый топинамьур (Helianthus tuberosus). Высоким показателем отличается лопух большой, а по урожайности - топинамьур. Высокой ферментативной активностью обладает одуванчик полевой. Для получения глюкозо-фруктозного сиропа из инулина, предпочтительно пользоваться ферментативным гидролизом.

### RECEIVING OF THE INULIN FROM DIFFERENT PLANTS

E. G. Baghdasaryan A. G. Telunc G. E. Baghdasaryan

Several wild plants have been studied in order to determine the quantity of the inulin: burdock (Arctium lappa), chicory (Cichorium inthybus), asparagus (Asparagus officinalis), dandelion (Taraxacum officinale) and jerusalem artichoke (Helianthus tuberosus). Burdock has the highest index and jerusalem artichoke has the highest rate of fertility. Dandelion has a high fermentative activity. To receive a glucose-fructose syrop from the inuline it is advisable to use fermentative hydrolysis

# NATURAL RENEWAL OF HORNBEAMS (CARPINUS CAUCASICA) IN LAGODEKHI STATE RESERVE

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Lagodekhi proected areas are located on the eastern part of Georgia, exactly in Lagodekhi District. It was announced by the initiative of Russian scientist R. Kuznecov in

1912 year [2]. At first it was stretched on 17,818 hectare. From which 12,146 hectare was covered by forest but the rock area was 593 hectare [2]. According to the law in 2003 year, two protected areas were created on based of Lagodekhi State Reserve. Lagodekhi State Reserve which was stretched on 22,266 hectare and Deprived area of Lagodekhi stretched on 1,992 hectare.

Four rivers source takes place on Lagodekhi Protected area in high mountain: Ninoskhevi, Lagodekhi water and Land water which flows at the border of Georgia and Azerbaijan. These rivers make some spillways and waterfalls. The most noteworthy is waterfall of Ninoskhevi, (which is located in the village Gurgeniani. Its high exceed tens of meters). There are some lakes In the Alpine belt which is origin by Glacier. The deepest one is Black Rock Lake. It flows at the border between Georgia and Russia and it high is 14 meters.

Lagodekhi Protected area high varies between 400-3500 Meters above the sea level [2]. The altitude difference is more than 2600 meters. This peculiarity of the nature has led to the diversity of flora and fauna in the Reserve where the dominant Plants are Beech and Hornbeam. Beech occupies 8, 843 Ha and Hornbeam occupies 2326 hectare [2] in Lagodekhi state Reserve.

In Lagodekhi State Reserve on the exposition slopes of the Hornbeams (Carfinus Caucasisa) begins from 1700 m. and reaches to the high of 1800 m. As separate entities we can meet them 2000-25000 m high above the sea level [2]. It is completely dominated on the south of the slopes of transition exposition above the sea level. Its high begins from 450m and reaches to 1300-1400m. But its high on the eastern exposition slopes begins from 600m and reaches to the 1200m. [3].

The Hornbeam groves dig to subtropical belt from the north exposition slopes but it can't grow up in the conditions of the continental climates.

Hornbeams breeds by seed in some cases by overlying the branch. It doesn't need any especial soil; it grows on dry, stony and scree soil.

Hornbeam forests are very important ecologically for nature. Except ecological needs it is widely used in agriculture and carpentry. That is why it has scientist and practical importance to renewal hornbeam forests naturally and research their nowadays development. It enables us to twig to the biological mechanism which leads to formation and development regularities of hornbeam forests. The aim of our research was to find out hornbeam natural renewal in Lagodekhi state reserve-park.

The research was held on the geographical coordinates N=43.05.942; F-45'23'266. The land area is  $10 \times 10$ .

The relief is characterized by diversity on the 600m high above the sea level on the eastern exposition slope. Shakes between 10-15%. The depth of soil is 40-45sm.

In the dead –covering we meet leaves and small branches which coverage is approximately 80%. The number is 1000-1200mm of annual precipitation but average annual temperature doesn't exceeds to 13 degrees.

Based on our research we can conclude that in studying area we mainly meet stands of adult hornbeams, which amount is 47 trees. Adolescent hornbeams amount is 38, but browses are 11. According to recent data Lagodekhi state reserve-park hornbeams door characterized by natural renewal which is mainly the result of the plentiful harvest of seed

and also of good mode of protection of nature reserve.

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# ԲՈԽՈԻ ՎԵՐԱՄՇԱԿՈԻՄԸ ԼԱԳՈԴԵԽԻԻ ՊԵՏԱԿԱՆ ԱՐԳԵԼՈՑՈԻՄ

S. Գ. Խոխոբաշվիլի

Յոդվածում քննարկվում է բոխու վերամշակման եղանակները Լագոդեխիի պետական արգելոցում։ Յողատարածքը զբաղեցնում է 10x10։ Արվել են հետազոտություններ և արձանագրվել են կարևոր արդյունքներ։ Ըստ Լագոդեխիի պետական արգելոցի վերջին տվյալների` սերմի բավականաչափ առատ պաշարներ կան։

# ВЫРАЩИВАНИЕ ГРАБА В ГОСУДАРСТВЕННОМ ЗАПОВЕДНИКЕ ЛАГОДЕХИ

Т. Г. Хохобашвили

В статье рассматриваются способы выращивания граба в государственном заповеднике Лагодехи. Земельный участок занимает 10 X 10. Проведены исследования и сделаны важные выводы. По последним данным заповедника Лагодехи имеется достаточный запас семян.