

INFLUENCE OF GRASSLAND CROP ROTATION AND APPLE GARDENING ON PROPERTIES OF LONG-TERM PLOUGHED IRRIGATED BROWN SOILS IN ISSYK-KUL DEPRESSION

M.A. Glazovskaya, I.A. Gorbunova

The article shows the results of a soil research carried out on an experimental site of a Selection Station for Fodder Crops (Kirghiz Institute for Livestock-Breeding) located in Issyk-Kul depression. The aim of the study was to show the role of grassland crop rotation and fruit tree plantations on improvement of agro physical and agrochemical properties of degraded long-term irrigated brown soils in dry steppe areas. It has been established that such crops as alfalfa, clover, ray-grass and timothy-grass used in crop rotation are the most effective for recovery of humus and nitrogen pools. It has been demonstrated that the dominance of fulvic acids in humus ($C_{fa}/C_{ha} = 0,35-0,4$) under various grass mixtures doesn't contribute to formation of water-stable structure. It has been revealed that apple gardens have the optimal positive influence on humus and aggregation state of soils and increase the activity of earthworms; the humus content in soils of thirty-year-old garden has reached 4%, the proportion of Ca-humates has increased, the aggregation state of soils has been greatly improved.

TO THE INFLUENCE OF ZEOLITES ON SOWING QUALITY OF SEEDS OF SOME VEGETABLE CROPS AND WHEAT

T.G. Andronikashvili, T.N. Kordzakhia, M.G. Zautashvili, M.A. Dzagania

In the laboratory conditions the effect of the influence of natural zeolites of sedimentary origin, namely analcime-, clinoptilolite-, laumontite-, mordenite- and phillipsite-containing rocks of different deposits of Georgia were studied, as well as synthetic zeolite of the type CaA as the standard of comparison on sowing quality (germination energy, sprouting, height of sprouts of plants) seeds of spinach, cress, leaf lettuce and wheat. The paper shows positive influence of these minerals on the above indexes, especially the most effective action of the synthetic zeolite CaA.

FORAGE PRODUCTION AS THE MOST IMPORTANT BRANCH OF AGRICULTURE IN GEORGIA

G.D. Agladze

The paper deals with the history of development of forage production in Georgia. It gives a brief characteristics and review of the current state of the branch; main trends of its rehabilitation and possibilities of its further development in the conditions of market economy. In XXI century particular attention must be paid to grass sowing, improving natural haymaking and pastures, seed growing, introduction of economically efficient and ecologically safe technologies of forage production.

CHANGE OF BIOLOGICAL ACTIVITY OF SOILS OF SUBTOPICS ZONES DEPENDING ON THEIR TYPE

N.H. Orujova

In grey-brown, meadow-serozem, alluvial-meadow-forestry and yellow-gley soils of subtropics zones in a crop rotation under vegetable cultures, at permanent cultivation of these cultures and virgin variants for comparison fermentative activity, number of microorganisms, intensity of carbonic gas isolation from soils, nitrification, ammonification and decomposition of cellulose was investigated. On the basis of biochemical parameters are given biodiagnostics and a complex of biological parameters are given the integrated parameter of ecology-biological condition of investigated soils is determined. Results of analyses have shown, that using of the scientifically-grounded crop rotations in conditions of irrigation in alluvial-meadow-forestry and in yellow-gley it is possible to keep fertility, and increase it in grey-brown and meadow-serozem soils.

CAUCASUS ZHELTOZEMS - THROUGH THE PRIZM OF TIME

I.A. Gurov

In the century-old history of pedogenetic investigations of zheltosozems initiated by V.V. Dokuchaev, several crucial problems were revealed, and until now they remain unsolved. However, unusual and controversial properties of soils were recorded already in early studies.

In the 1920-ies, zheltosozems were described as soils with specific properties, some of which are in bad agreement with the environment: yellow color, abundance of manganic nodules, heavy texture; weak structure, high compaction and low content of nonsilicate iron, excess of soil moisture and secondary carbonates against weak gley manifestations;

predominance of lithogenic structures over the pedogenic ones, etc. Three pedogenetic hypotheses were competing: 1) zheltzems are rock-dependent soils; 2) the effect of climate is weak enough to form krasnozems and sufficient only for zheltzems; 3) zheltzems are confined to conjugated positions in catenas within the krasnozem areas. The first hypothesis was efficiently substantiated by A.I. Romashkevich. Anthropogenic impacts in the densely populated coastal lands make the pedogenetic problems still more intricate, and the areas of conventionally virgin zheltzems are catastrophically shrinking.

POLYMERS AS THE MEANS OF PEST CONTROL IN THE AGRICULTURAL CROPS

K. P. Dilbaryan

The paper deals with the usage of the modified polyacryl acid and the means in the form of hydra liquids of copolymers of vinyl acetate with acryl acid and vinylacetate with croton acid for pests in agricultural crops. It shows that the definition of the concentration of these materials is rather effective.

STUDY OF DYNAMICS OF GROUND WATERS AND PROGNOSIS OF WATER SALINE REGIME OF SOILS IN THE ZONE OF SERVICE OF VILASHCHAY RESERVOIR

Q. Q. Jebrailova

The paper deals with the condition of soil and ground waters in the zone of the Vilashchay reservoir service, their mineralogical structure and dynamics, influence on soil productivity and fertility. The study of the salt regime and the depth of bed of ground waters showed that in their structure the light-soluble salt increases breaking permissible concentration in all the areas of the investigated object. The problem connected with the incorrect irrigation and unreasonable usage of soil is exposed to soil salinity. That is why agromeliorative measures are considered one of the main measures.

ANALYSIS AND FORECAST OF SPRING FLOODS RUN-OFF AND VEGETATION PERIOD OF THE DEBED RIVER

L. V. Azizyan

The paper analyzes the questions of the Debed river spring floods run-off and vegetation period forecast and analysis. For the run-off forecast multifactor correlation links of run-off and factors were obtained determining it. Obtained links meet necessary requirements of forecast issue.

BIOECOLOGICAL PECULIARITIES OF SOME SEMI-EVERGREEN PLANTS AT BATUMI BOTANICAL GARDEN

F. E. Chaidze, T. K. Tskhoidze

The paper deals with the bioecological peculiarities of some semi-evergreen plants at Batumi Botanical Gardens. Plant development, as an indicator of weather and climate changes has been studied. The warm weather on the Black Sea coast of Adjara takes the opportunity for vegetation throughout the year. It has been revealed that if the conditions change undesirably for the organism, it will act quickly or slowly. The woody plants introduced on the Black Sea coast of Adjara expose high capacity of adaptation to the local conditions, which result in the introduction success.

THE AMERICAN FALL WEBWORM (*Hyphantria cunea Drury*) AND ITS PARASITIDS IN GEORGIA

M. S. Tvaradze, N. V. Goginashvili, M. B. Kereselidze

The paper gives the results of the investigation of invasive pest insect American Fall Webworm parasitoids in the condition of West Georgia. 7 species of parasitoids in tropic connection with American Fall Webworm have been discovered. Among them are: 2 species *Hymenoptera*, 2 species *Diptera*, 1 species *Neuroptera*, 2 species *Coleoptera*, 8 species of spiders are found also. More effective pupae parasitoids are *Chouioia cunea* Yang. (*Hymenoptera: Eulophidae*) and *Psychophagus omnivorus* Walk. (*Hymenoptera: Pteromalidae*). They cause substantial influence on the regulation of pest insect population density *Psychophagus omnivorus* as a parasitoid of American Fall Webworm has been registered for the first time in Georgia. On the base of factual materials the paper shows the biological characteristics of these parasitoids and estimation of their role as a bio agents for the reduction of pest number.

SUSTAINABLE DEVELOPMENT PROSPECTS OF GEORGIAN HIGHLANDS

A.K. Didebulidze*, G.I. Tarkhan-Mouravi**

While sustainable development of mountainous regions of Georgia is of utmost importance for its future, as well as for preserving its cultural and natural heritage, currently the situation is alarming. Poverty, depopulation, environmental degradation is the sad characteristics of Georgia's highlands today. The paper considers key problems of Georgia's highlands and discusses policies that could mitigate the plight of the highlanders and promote sustainable development and life with dignity on the foothills of Georgia's gorgeous mountains.

SOLID WASTE IN THE COUNTRIES OF SOUTH CAUCASUS – ANALYSIS OF THE PROBLEM AND METHODOLOGICAL APPROACHES OF THE DECISION

K. T. Nadiradze, T.A.Lagidze, T.R.Shamatava

The article deals with solid waste in the countries of South Caucasus – analysis of the problem and methodological approaches of the solution. It is addressed and analyzed problems of solid waste management in three countries of South Caucasus (Armenia, Azerbaijan, Georgia). Article reviews methodological approaches of closed cycle and gives recommendations for improvement of collection system, placement and utilization of solid waste in given countries.

THE CURRENT STATE OF HYDROLOGICAL FEATURE OF LAKE SEVAN

B.K. Gabrielyan, S.A. Poddubnyi

Current distribution of temperature, electrical conductivity and dissolved oxygen content of the water is compared with the data of 1970s-80s. Spreading of river waters in the water mass of Small Sevan is evaluated. It has been shown that distribution of hydrophysical characteristics in the water column of the lake during the recent 25-30 years has generally remained unchanged. In Big Sevan deficiency of oxygen in the hypolimnion during autumn months remains a negative factor affecting living conditions of the hydrobionts. Spreading of inflowing river waters in the littoral zone of the lake during summer-autumn period is limited to 50-150 m. As a result of rising of the water level by 60 cm during recent years followed by flooding of the littoral-based wood and shrubbery vegetation, eutrophication of the littoral zone might be enhanced. It has been concluded that rising of the water level by 6 m, reaching level of 1903.5 m asl, will foster improvement of the water quality of the lake.

THE RESEARCH METHODS OF DURABILITY BY THERMO MECHANICAL PROCESSING OF EXTERNAL WOOD

G.S. Jamalov

External woods are working parts of the machine. Thermo mechanical methods are used for increasing the resistance and durability of these machines. Using the offered methods it is possible to increase the durability of this machine of more than 35 %.

MAIN PROBLEMS OF REDUCING DRAGGING RESISTANCE OF COMMON SIGNIFICANCE (FIRST INFORMATION)

A.A. Hovhanisyan

Rubbing resistance plays an important part in the dragging resistance of winged plough. The power of rubbing which depends on trunk quantity, soil resistance and metal capacity of ploughs has been determined and introduced in the work. Soil resistance depends on soil type and ranges within 3-10 kN. The truthfulness/wrathfulness of these data has been approved and can be used as a basis for changing sliding field plough with the rolling ones.

STATEMENT OF PARAMETERS OF DISK WORKING BODIES

P.A. Tonapetjan, A.M. Esoyan, A.A. Arakelyan

Problems of optimization of the disk harrows parameters intended for operation in the mountainous area of agriculture have been researched in the given work. The elaborated theory of geometrical and operational parameters estimation of spherical disks in disk tilling tools allows to choose optimal size of the attack corner and the disk diameter depending on property and plough land condition for the set depth of the tool course.

EXPERT ASSESSMENTS OF VALUE OF APPLIED TAKING INTO ACCOUNT INTERSUBJECT COMMUNICATIONS

N.V.Chkhaidze

The purpose of the given work is a grounded analysis of use of applied problems in a course of mathematics of a technical college. In work the method of construction of optimum system of problems of applied character for the directed development of skills of applied mathematical research is investigated. For this purpose experiment is made to define criteria on selection of problems. The novelty of our research consists of revealing the principles of building optimum system of applied educational problems on a material focused on the future specialty. The practical importance of the carried out research involves that it has led to building of procedure of construction and use on a practical training of optimum systems of problems and the exercises of the applied maintenance directed on increase of level of informative activity of receptions trained and favoring to formation of application of mathematical methods.

DETERMINATION OF THE DISTANCE BETWEEN DISTRIBUTORS OF SUBSOIL-DRIP IRRIGATION

E.G. Kukhalashvili, G.G. Omsarashvili, A.L. Sakhvadze, M.D. Loria

Selection of design parameters of subsoil irrigation system is a function of physical and mechanical properties and soil seepage characteristics. Taking into consideration of optimum irrigation water usage and introduction of differential equations of water motion with fluctuated mass the dependences for definition of distance between perforated distributors and holes of perforated distribution tubes are obtained.

CULTIVATION OF THE ISOLATED PATHOGENIC ASFV IN PRIMARY CELL CULTURES

Kh. V. Sarkisyan

Cultivation of the ASF epidemic virus in various cell cultures in incubation condition of 37⁰C and 24, 48 and 72 hours show that bone marrow primary cell culture have better titer of viruses ($5,0 \pm 0,1$ lg). It was established that the greatest accumulation of the ASF epidemic virus (Tavush-Lori 2007) was persist after 48 hours during incubation on primary bone marrow cell culture.

PERIPHERAL BLOOD MORPHOLOGICAL AND PHYSICOCHEMICAL INDICATORS IN CASE OF AFRICAN HOG CHOLERA

L.A. Makaradze, E.Z. Ghvaladze, E.G. Chachua

The paper is devoted to the study of morphological and physicochemical indicators of blood of pigs infected with African Hog Cholera, with clinically less and acute expressed symptoms. During the research of morphological indicators of blood in case of African Hog Cholera leucopenia has been revealed $M \pm m = 2,5 \pm 0,11$, which has been sharpened at the end of the pathological process in the premarital period. Proliferation of lymphocytes and the cells of plasmic order has been revealed at the beginning of disease $M \pm m = 53 \pm 2,2$, $M \pm m = 5 \pm 0,37$, and their amount has reduced in the premarital period $M \pm m = 27 \pm 1,58\%$, $M \pm m = 2,3 \pm 0,21\%$. Formula declination to the left till myelocyte in the smear of blood has been observed, and acceleration of the erythrocyte sedimentation rate has been stated.

INCLUSION AND DRAINAGE OF VARIOUS INJURIES OF THE DISTAL FORELIMB IN GIANT CANINES

G. B. Antidze, V.I. Tvaliashvili, T.Sh. Papuashvili

This paper presents a retrospective study, on a sample of a great number of giant breed dogs, how to carry out rational treatment of injured distal forelimb. Incision and drainage are carried out for local infections in the distal region of limb. Surgery, as a rule, is contraindicated in the presence of a spreading streptococcal infection [1]. Apart of growing inwards of claws and its growing abnormalities as a reason of rubbing insufficiency, the main disease of fingers in dogs is a parenchyma [2]. Incision and drainage vary with the location, duration, extent and severity of the infection, as it can penetrate deep into tissues and result in purulent inflammation and necroses of joints, bones and tendons. This process is accompanied by thickening of finger and distal region of limb. With the purpose to determine sites of rational incision and drainage of distal forelimb region, we have studied several cases of severe purulent inflammation in giant dog breeds – German and Caucasian shepherds.

BODY HEIGHT OF ALIVE MASS AND MORPHOLOGICAL PARAMETERS OF BLOOD CROSS-BREED RABBITS

J. S. Gugushvili, A. B. Bokuchava, E. Z. Gvaladze

The work gives dynamics of alive weight and hematology parameters in 60, 90 and 120-day's age thoroughbred, two and three-pedigree cross-breed rabbits. Studying of absolute parameters of alive weight rabbits at two-pedigree crossing male and female meat breeds, male and female meat-shaggy breeds and from three-pedigree crossings males' meat-shaggy of a direction of efficiency with cross-breed females, received from two meat breeds and their thoroughbred contemporaries have shown that, the highest parameters were observed among two-pedigree hybrids $HB \times K - 2904r$, and three-pedigree $CB \times HB \times K - 3231r$, that on 7,1 – 9,2 and 19,2 – 25,0 % accordingly are more, than at thoroughbred contemporaries. According hematology parameters interpedigree distinction among experimental animals took place. At cross-breed animals, especially three-pedigree, there is only little tendency to their prevalence.

USING THE SILAGE FERMENT SILL-ALL

R.R.Barkalaia, L.S.Tabatadze, K.D.Natsvaladze, M.I.Matskepladze

The paper describes the process of siloing using the ferment sill-all. This is the sample of complex lactic-acid bacterium, that makes for fast and effective fermentation of silo mass. Fresh grass has the highest content of protein, but half of its is damaged, if siloing is done without fermentation. Sill-all makes it possible to use any kind of grass for siloing and help produce more milk from cows. Application of Sill-all helps produce effective and fast ferments.

PRESENT-DAY STATUS AND PROSPECTS OF PRESERVATION OF ARMENIAN BATHRACHOFAUNA

E. M. Yegiasaryan, A. L. Aghasyan

Problems of preservation of biodiversity of amphibians' fauna are the subject of the paper. Different types of nature protection and possibility of their realization with respect to amphibians are discussed.

GENETICALLY MODIFIED FOOD

E. G. Kvesitadze, E. G. Kirtadze, T. A.Sadunishvili

In revue the expediency of receiving and use of genmodified organisms: microorganisms, plants and animals, for their application in food processing is discussed. The data proving the production of individual food ingredients produced by genmodified organisms and approved be Euro Union are presented. The strategy of determination of genmodified organisms is described and possibility of wide use of this methodology is proposed. The data indicating on safety of genmodified organisms and genetically modified food is discussed

THE RESEARCH OF RECEIVING FLOUR FROM SEA-BUCKTHORN SHROT IN PRODUCTION OF MEAL CONFECTIONER'S PRODUCTS

V. A. Manukyan, A. I. Nazaryan

The paper gives the chemical form of sea-buckthorn shrot and the way of receiving it. In the production of rich cookies, researches have been carried out with the use of sea-buckthorn flour.

High flavoring and consuming properties of a ready product and food value are shown. The processing technology of production of new kinds of flour confectionery products allows to obtain a functional foodstuff.

THE INFLUENCE OF POST HARVESTING PROCESSING AND DRYING OF CHEMICAL CONTENT OF DIFFERENT SORTS OF TOBACCO

G.M. Arutyunyan

In the process of forming the quality items of different sorts of tobacco the duration and condition of dampening and drying are of great importance among the post harvesting works. As a result of dampening and drying it was found out that Ostrolist-59 sort was dampening faster than Virginia sort. The number of Shmook is high in the samples dampened and dried in the sun. After post harvesting processing works should be used dampened and dried in the sun variant.

PRELIMINARY PROCESSING OF APPLES BEFORE STORAGE

M.B. Kereselidze, L.A. Mujiri

At storage of apples the greater share of damage to falls to their infectious diseases. Fruits processed with airions were stored for 180 days in refrigerating conditions. Dynamics of change of chemical and organoleptic parameters is studied. At the end of storage all chemical components in the processed samples were kept better than in the control fruits

TO THE ISSUE OF INCREASING THE ASSORTMENT OF KAKHETIAN WINES

T.D.Buachidze

According to the results of five year study it is possible to recommend the following varieties of grapes for production of high-quality table white wine of Kakhatian type: "Rkatsiteli", "Kakhuri Mtsvane", "Khikhvi", and "Kisi". Implantation of these varieties will increase the assortment of Kakhetian wine in wine industry.

INVESTIGATION OF STRUCTURAL PECULIARITIES OF BENTONITE CLAYS BY EPR METHOD

B.S. Tsereteli, Z.A. Kuratashvili, L.B. Tsereteli, M.Sh. Japaridze

Samples of bentonite clays were investigated by EPR method prior to and post of their application as precipitators. Value of resonant spectral line for ionic Fe (III) in octahedral form is $g=4.6$. Value of resonant spectral line $g=2$ relates to admixture of Fe (III) ions. Ferromagnetic phase of magnetite formed from admixture of Fe (III) ions was detected in EPR spectrum of bentonite after its usage for wine stabilization. Ionic Fe (III) in octahedral form in bentonite structure remains unchanged after its usage as precipitators. It is detected that samples of bentonite used for wine clarification and stabilization do not undergo structural changes.

THE CHANGE OF GROWTH AND WATER REGIME OF *QUERCUS MACRANTHERA* IN THE CONDITIONS OF NORTH-EASTERN ARMENIA

Zh. A. Vardanyan, A. A. Kulijanyan, V. A. Davtyan

12 and 23 year old cultures of *Quercus Machranthera* were grown in 5 densities 1350-8790 and 1070-8340 trees per hectare respectively. With the increase of density of stands of both ages, the heights of trees have increased correspondingly, resulting in the discontinue of growth in diameter and thus decrease of volume. In 22 years time the stands decreased significantly. Currently the 34 year old trees are growing with the density of 820-3550 and 45 year old trees in 770-2780 trees per hectare. The high density of stands was accompanied by the increase of proportion of water in the leaves and decrease of transpiration intensity. The increase of age resulted in the increase of quantitative indices of the water regime, not affecting the regularity of its alteration in density. The data are discussed from the point of view of change in enlightenment, the role of the roots, species competition and the relation of growth and volume with water regime.

REPLACEMENT THE OAK BY HORNBEAM IN THE FORESTS OF LORI MARZ

Z.S. Vardanyan

Forest recreation in deforested areas is carried out by seed as well as vegetative methods. Stump and shoots regrowth is noticed in the deforested areas of Gugark. Throughout the cut-outs of Gugark (Lori marz, Armenia) *Carpinus orientalis* intensively regenerates through vegetation. Natural shoot regrowth is noticed for hornbeam, the pace of oak trees regrowth is low.

ON THE ABSOLUTE ERROR OF CURRENT INCREMENT OF BEECH STEM

S.I.Makhauri

The paper deals with the results of the study of exactness of the percentage of the error of current increment of beech stem. Determination of absolute meaning through division into parts (sections). It was stated that the error of current increment of beech stem actually made $\pm 10-12\%$ and average $\pm 3-5\%$.

NATURAL RESTORATION OF STANDS *FAGUS ORIENTALIS* AND *ABIES NORDMANNIANA* IN WEST GEORGIA

N.A. Kobakhidze, A.Sh. Apciauri

The article deals with the natural restoration of stands *Fagus orientalis* and *Abies Nordmanniana* in West Georgia. This species stands are characterized by the better indicators of growing-development and by their natural renovation – restoration peculiarities, which usually create different aged, many-stored and high productive stands. Which is cause of their biological peculiarities and on the other hand it is cause of active human intervention in growing and development processes. Characteristics of forms and structure of these species have to be foreseen as well, which creates normal natural conditions for formation of relatively sustainable forests.

THE PROBABILISTIC (STOCHASTIC) NATURE OF DEPENDENCE BETWEEN SOCIAL VARIABLES

A.Z. Hakobian

Social variables differ from natural ones; in particular, as these variables basically are not additive, have latent and probabilistic nature. At last, the probabilities distribution of these variables have abnormal (non-Gaussian) from. In work there are points of view which are contradicting neither to logic, nor to the facts according to which there are quite constructive decisions of above problems. Non-additive social variables can be made additive ones, latent social variables can be quantitatively measured by corresponding indicators, for all social variables it will be probable to construct sets of probabilistic distributions, proceeding from the statement, that if in natural sciences the dependence between variables prevails above distributions, so in social sciences vice versa, distributions prevail above dependences. As the probabilities distributions of social variables have the form of non-Gaussian distribution, so it is considered to be allowed to use special (Cipfian) probabilistic distributions for their approximation.

SOME ISSUES ON THE INFLUENCE OF THE WORLD FINANCIAL CRISIS ON THE BANKING SYSTEM OF RA

S.S. Sukiasyan

The influence of the world financial crisis on the banking system of RA is absent according to small balance of mortgage credits. The emerging liquidation issues can be connected with the repayment of deposits of non-residents as well as due to bankruptcy of foreign banks, because of balance losses of correspondent accounts of local banks in the foreign banks. The latter is less possible as a result of recovery programs of liquidation in developed countries. In 1999, in the USA, there were no limitations on investment of other kinds of activities in those banks. The legislation of RA gives this kind of opportunities to the banks, which are practically not applied. It is better to omit this legislative rule, due to absence of results in practice and for the prevention of crisis.

RESULTS OF FUNCTIONING OF GEORGIAN NATIONAL ECONOMY

J.R. Oniani*, N.N.Khasaia**

In work we have considered the volume of common economic indicators, their dynamics and structure in 2003-2007. In particular: 1. Account of production and services – we have studied the process of balancing the account, the branch structure of total surplus value and structure of total output including branches and sectors. 2. Incomes account which gives possibilities to analyze gross Domestic Product by its units. 3. Products and services account. These accounts make foundation for the analysis of the country's most important proportions and correlations. In particular it shows correlation between import and export, between consumption and accumulation.

SOIL AND LANDSCAPE-GEOCHEMICAL RESEARCHES OF B.B.POLYNOV IN HUMID SOUTH CAUCASUS SUBTROPICS

M.A.Glazovskaya, T.F. Urushadze

Boris Borisovich Polynov (1977-1952) was a Member of Academy, a soil scientist, a geographer and a geochemist. From 1932 to 1934 Polynov was running a research on soils and ancient lateritic weathering crust in humid subtropics of Transcaucasia. This article describes the theoretical and practical significance of soil and biogeochemical studies of ancient weathering crust and lateritic soils in humid subtropics in Georgia and Azerbaijan. The methodological role of integrated analysis of the chemical composition of soils and plant ashes for better understanding the biogeocenoses functioning in natural and cultivated landscapes is emphasized.

**RESULTS OF SCIENTIFIC-RESEARCH ACTIVITY IN SERICULTURE
IN GEORGIA WITHIN 1892-2000 YEARS**

B.V. Sakandelidze, T.S. Dalalishvili

The paper deals with the results of scientific-research activity carried out in mulberry selection and agrotechnics. With the view of mulberry plant selection the paper considers the organization of the first collection land plot in Georgia, scientific study of mulberry gene fund in 1930-1937 and breeding-exposure of mulberry breeds according to the stages. Specific attention is concentrated on development of classical scheme for selection work when mulberry leaf curl disease was distributed in West Georgia as well as on breeding of tolerant mulberry breeds via synthetic selection.