

geese of experienced group, or it is less on 17,2 %.

Influence of an eleutherococcus on quality eggs.

By one of indexes of quality the eggs are their mass and mass of components of an egg (yelk, protein, shell), that renders the certain influence on results of an incubation, defines{*determines*} their commodity value. In all experiments monthly weighed eggs of the morning collecting from the same layers. Batchly opened on 20 eggs from every group and weight parts of the egg. Here is experiment was carried out on Talashinsky chicken factory on pullets of 6 1/2 months age of white leggorn breed of cast holding. In experienced group — 1080, in control — 780 layers. The hens of experienced group within 14 days gave in a forage an extract of an eleutherococcus till 0,2 mls on a head. The control group of layers of a stimulator did not receive.

The results of weighing have shown eggs, that mass eggs of the hens of experienced group was higher, than control, 9,2 %. Mass of protein made eggs of the hens of experienced group 60,0 %, yellow — 28,0 %, shell — 12,0 %, in relation to general{*common*} mass of an egg at the hens of control group accordingly 59,62 %. 28,72 and 11,67 %. Hence, in eggs of the hens of experienced group there was a mass of protein and shell in relation to general{*common*} mass of an egg a little bit more, which is higher, than at the hens of control group.

From the literature it is known, that between mass of protein in an egg and birthlevel of a nursing there is a direct dependence (Моисеев etc., 1967). Even its{*her*} insignificant augmentation positively has an effect on embrional development and conclusion of a healthy nursing.

Influence of an eleutherococcus on the contents of nitrogen and nucleic acids in eggs, genesial bodies of the hens and in embryo tissues. The egg a genesial cell, in which passes development of embryo. The power supply it{*him*} is carried out at the expense of substances incorporated in an egg during his{*its*} formation in an organism of a layer. Hence, the nutritional value of an egg for эмбриона is defined{*determined*} by a level of metabolic processes at a layer (Caspersson, 1941; Novikoff et al., 1948; Mangel et al., 1948; Davidson et al., 1949; Herrman, 1952; Лесли, 1957; Махинько etc., 1960). Prior to the beginning sexual maturing ovary and oviduct of layers contains minimum quantity{*amount*} of nitrogen, which level to a start{*! by the begining of*} of a lay raises on 50 — 70 % (Савронь, 1964). The best exchange of protein at the hens of cast holding happens in the age of 10, at the hens of the floor contents — 12 months (Чечеткин, 1964). The question of influence of a stimulator on the given index in the literature has not found due illumination.

On Talasnisky chicken factory of Smolensk area (1972) before a bookmark eggs on an incubation opened till 20 pieces and killed till 5 hens from experienced and control groups. In homogenates from a liver, genesial bodies of the hens (in an ovary with oocytes and albuminous part of an oviduct), in yelk and protein eggs defined{*determined*} the contents of nitrogen and nucleic acids. In homogenates эмбрионов of three stages of development carried out{*spent*} the same researches (tab. 10).

The researches have shown, that in an albuminous part of an oviduct and ovary with oocytes of the hens of experienced group the share of protein nitrogen exceeded the control on 12, 6 % and 12, 9 % accordingly (Зориков, Ляпустина, 1973). In an albuminous part of an oviduct secretes all ground mass of protein eggs (Савронь, 1964). The rising of the contents of nitrogen in a nem specifies influence of an eleutherococcus in the given direction. The level of a ribonucleic acid in an albuminous department of an oviduct of the hens of experienced group exceeded the control on 34, 1 %, in an ovary with oocytes on 31, 8 %, that also speaks about activity of processes of

albuminous synthesis.

The level of nitrogen in protein eggs of the hens of experienced group is higher, than in control, on 25, 3 %, in yellow on 13, 6 %. Rising the contents of protein nitrogen (residual) — on 33 % in protein eggs and on 8, 3 % in yelk is simultaneously marked.

Level of the contents of a DNA in homogenates of embryo of eggs of experienced group of the hens on 11 S and 19 S day was higher than in control of on 12,7 % and 55 % accordingly. More high level of the contents of nucleic acids in bodies of embryos of experienced group specifies activity at them of mitotic processes, that is caused by a set and quantity{*amount*} of nutritious substances in eggs of the hens of experienced group.

Fertilization of eggs, quality of sperm production of the males after application by him{*it*} of an eleutherococcus. Disclosing the given question is more expedient, to begin from group of birds, with which carried out{*spent*} a stimulation by an eleutherococcus in the individual order.

Fertilization eggs of geese. The gengers of experienced group received on 2 g of a powder of leaves of an eleutherococcus on a head, within 14 days, prior to the beginning a breeding season. The gengers of control group of a stimulator did not receive. The eggs from experienced and control groups of geese in process of their collecting marked{*aimed*} by number of a goose and hatched. For a season of 1965 it was hatched till 335 pieces eggs from both groups. In experienced group embryonate there was 88,8 % eggs, in control — 70,7 %.

More appreciable influence on fertilization had the eleutherococcus at birds is more senior than five years' age. So, in experienced group 100 % eggs, in control — 70,7 % embryonated.

Fertilization eggs of the turkeys. In state farm "«Nedelinsky" of the Kaluga area carried out{*spent*} a separate stimulation of the turkeys and turkey-cocks by an eleutherococcus. In groups was till 1100 turkeys and till 100 turkey-cocks. A stimulation carried out{*spent*} within 14 days in succession. Applied a powder of a root of an eleutherococcus on 2 g on a head per day. The contents and feeding a bird of both groups was similar. On an incubation have put in pawn from experienced group 6436 eggs, from control — 11 930. In experienced group embryonate there were 4872 eggs, or 71,5 %, in control — 7865 eggs, or 65,8 % to incorporated.

Hence, on both kinds of birds the similar results were received{*obtained*}. The quantity{*amount*} embryonate eggs has increased at a stimulation males. The same result have received and at a stimulation of the hens and cocks.

Influence of an eleutherococcus on quality of sperm production of the cocks. In the age of 60 days the cocks of experienced group of breed received a white leggorn with a forage 10 days in succession extract of roots of an eleutherococcus till 0,2 mls on a head. Contained the cocks of control and experienced groups together with pullets of the appropriate groups immediately in a facilities{*economy*} (Karachaevskaya chicken factory of the Kaluga area). In the age of 180 days from each group have taken till 3 cocks, which have delivered in a vivarium of institute and contained separately on groups. Fed on norms the Scientific Institute of chicken breeding. -FIRST attempt to receive an ejaculate by a method of massage in 180-day's age of birds it has not managed. Hence, the early stimulation of the cocks by an eleutherococcus has not rendered influence on rate of a puberty of the cocks, though at a slaughter till 20 cocks from each group in the age of 90 days the appreciable difference in mass of sexual bodies (fig. 9) fixed.

With 191 for 200 days of life the cocks of experienced group again received with a forage an extract of roots of an eleutherococcus till 0,2 mls on a head per day. Since the first day of a stimulation daily within 30 days took an ejaculate by a method of massage. During a stimulation volume of an ejaculate of the cocks of experienced group has made 0,173 mls, control — 0,142 mls, and during an after-action 0,390 mls and 0,152 mls accordingly.

The concentration of spermatozoas in 1 ml of an ejaculate at the cocks of experienced group during a stimulation has made 1,825 bln., control — 1,940 bln., or was higher 5,94 %. During an after-action at the experimental cocks the concentration of spermatozoas was 2,630 bln. In 1 ml of an ejaculate, control group — 2,410 bln., or is lower 9,1 %. The activity of spermatozoas at

the cocks of experienced group during an after-action was equaled to 0,586 numbers, at control — 0,563 numbers, or is lower 4,8 %.

Influence of an eleutherococcus on a birthlevel of nestlings from eggs of geese, turkeys and hens after a stimulation female persons. It is known, that the basic role in rising a lay of birds and improvement of incubativ qualities eggs belongs albuminous (in particular, aminoacidic), mineral, vitaminized, microelement feeding of layers. Alongside with creation for layers of favourable conditions of a feeding, it is possible to utilize a stimulation of a parent population{*head*}, method of submergence. Eggs before a bookmark on an incubation in solutions of trace substances, vitamins, antibiotics, method of an injection in eggs before an incubation of various chemical substances (Мишин, 1971). However all these receptions of influence on incubativ qualities eggs are labour-consuming and consequently have not found wide application in practice of an aviculture. By more perspective are the receptions connected to influence on an organism of a layer, about what, in particular, are spoken by(with) the fact of improvement of quality of a shell eggs at augmentation in a ration of layers of a saccharose and glucose (Leclerg et al., 1971).

Test of influence of an eleutherococcus (extract of roots, powder of leaves and root of a plant) on a birthlevel of nestlings from eggs received{*obtained*} from stimulated geese, turkeys, hens, carried out{*spent*} in a series of experiences. In total was hatched after application of drugs of an eleutherococcus to the hens — of 50 thousand eggs, geese — 1806, turkeys — of 18,4 thousand eggs.

In experience of 1965 of a goose of experienced group received as a bolus a powder of leaves of an eleutherococcus on 2 r on a head within 14 days, the control group a drug did not receive. On an incubation from experienced group have put in pawn 93 eggs, from control — 130 eggs. An incubativ withdrawal{*waste*} the eggs from geese of experienced group have made 18 %, control — 27 %, for the account of tailed away embryos and dead borns. In the second experience (1966), after a stimulation of geese by the same drug within 10 days, on an incubation have put in pawn from geese of experienced group 810 eggs, from control — 773 eggs. The incubativ withdrawal{*waste*} for the account tailed away embryos and dead borns in experienced group has appeared below. Than in the control, on 7 %. Accordingly and the conclusion of functional goselings was higher on experienced groups in both experiments.

The eggs (6436 pieces) of experienced group of the turkeys receiving within 10 days a powder of a root of an eleutherococcus on 1 g on a head, have put in pawn on an incubation, from control group 11 930 eggs were incorporated.

By general{*common*} result of an incubation the eggs were gain in yield of a healthy nurseling from the turkeys of experienced group to embryonate eggs on 8,7 %, to incorporated on 6,2 % in comparison with the control. Dead borns from eggs of experienced group there was 11,6 %, control — 15,6 %. 9,1 % is deduced{*removed*} weak and tracing-papers on experienced group. On control — 12,7 %.

On an incubation have put in pawn from experienced group of the turkeys 1049 eggs, from control — 979. Have received eggs on 49 — 55-th day the ambassador of a beginning of experience, or on 39 — 45-th day after termination{*ending*} a stimulation. Embryonate there were in experienced group 90 % eggs, in control — 87,9 %. The eggs with a bloody ring in experienced group were 0,3 %, in control — 4,1 %. A healthy nurseling is deduced{*removed*} from eggs of the turkeys receiving an eleutherococcus (to incorporated) — 80,1 %, incorporated from eggs of the control turkeys — 33,5 %. The basic withdrawal{*waste*} at an incubation was for the account tailed away embryos and dead borns, which in control group there was 38,7 %, in experienced — 9,45 %. By one of the reasons of such phenomenon, apparently, was the falloff of an ambient temperature, that has worsened metabolic processes at the turkeys of control group, incubativ qualities eggs.

On Talasninsky chicken factory of Smolensk area to hens - layers of the first experienced group entered into a forage an extract of roots of an eleutherococcus on 0, 2 mls on a head per day (14

days), second entered on 0, 2 g of a powder of leaves of a plant (14 days). The third group was control. From each group of the hens simultaneously have put in pawn on an incubation till 649 eggs (tab. 11).

Chickens of each group of the hens have planted{*put*} separately. In 20-day's age alive mass has made them in the first group 141, 2 g, in second — 139, 5 g, in control — 138 g.

In the other experience which has been carried out{*spent*} in the same facilities{*economy*}, from the hens of experienced group have put in pawn on an incubation 4881 eggs, from control — 3552 eggs (six parties{*sets*}). The summary data are shown in the table 12.

From given, given in the tables 11 and 12, the positive influence of drugs of an eleutherococcus on a birthlevel of chickens is visible.

Have lead{*carried out*} experience, where separately stimulated the hens and cocks. In the first group there were 1333 hens, which gave a liquid extract of roots of an eleutherococcus. In this group have placed the cocks who were not receiving eleutherococcus. 1338 hens of the second group did not receive a stimulator, but to them have placed the cocks, which gave an extract of roots of an eleutherococcus. In the third group (2480 hens) drug did not apply. In all groups the parity{*ratio*} of the hens to the cocks has made 10:1. The eleutherococcus was given with a forage within 14 days in a dose by(with) 0,2 mls on a head. Carried out{*spent*} experience since October, 1969. For 55 days from a beginning of experience have taken till 146 eggs from each group and have put in pawn on an incubation in one incubator (tab. 13).

At moment of birth chickens were weighed. Their mass did not differ on groups. In 30-days age mass of chickens from eggs of the first group made 258 g, second — 260 gr, in control — 253. She{*it*} was higher at chickens of experienced groups on 1,9 and 2,7 % accordingly.

From given the tables 13 follows, that at a stimulation of the cocks percent{*interest*} embryonate eggs at the hens has raised{*increased*}, that positively has had an effect on a conclusion of healthy chickens. At a stimulation by an eleutherococcus only of hens of parent herd percent{*interest*} embryonate eggs, quantity{*amount*} of the deduced{*removed*} healthy nursing in relation to the incorporated eggs and in relation to embryonate has increased.

At both experienced groups of the hens was reduced embrional mortality of last period of development of embryos. It, apparently, was by a consequence of more uniform and intensive development of embryos, supplied by a set of nutritious substances in eggs of the hens receiving an eleutherococcus. It is necessary to notice, that in protein and yellow of eggs of the hens of experienced groups have noted authentically higher contents of nitrogen and nucleic acids.

Influence of an eleutherococcus on body height, development and safety of chickens, turkey-poult. The positive influence on body height and development of chickens of stimulators not of a vegetative parentage is known. The eleutherococcus, stimulator of a vegetative parentage, has passed State check and USSR in 1974 predicated by senior Management of a veterinary medicine MCX.

The advantage of drugs of an eleutherococcus (liquid extract of roots, powder of leaves and root of a plant) consists that they have a wide range of action. Influencing positively on weights addition of chickens, they raise also resistance of their organism to the various adverse factors of external medium, that has an effect for safety of a population{*head*} (Ляпустина, 1966, 1968; Зориков, 1966, 1972. etc.). The drugs do not replace with themselves a disadvantage of a forage of This or that nutritious substance, but on a background of the balanced ration raise mastering nitrogen of a forage (Пономарева, 1972), normalize many parties of a metabolism (Ляпустина, 1971), processes of oxidizing phosphorylation (Ляпустина etc., 1971). The drugs of an eleutherococcus can be applied at a short-term stall-feed cocks in specialized feeding state farms, chickens - broilers, and also at cultivation of genesial herd and stall-feed of chickens in facilities{*economy*}.

The expediency of application of drugs of an eleutherococcus to chickens of various age is caused by that, being by an adaptogen, it{*he*} interferes with development of stressful reactions at arising unusual to them of conditions of life, normalizes body height of chickens, which backlog

in early age has an effect for their further efficiency.

The eleutherococcus was tested on different age groups of chickens. A part of a received{*obtained*} material we shall result below.

Under observation there were 140 000 chickens, 2500 turkey-poults of different breeds and age.

One of experiences have lead{*carried out*} on 30-day's chickens of breed a white leggorn. The first experienced group (1900 chickens) received an extract of an eleutherococcus on 0, 2 mls on a head per day, second (1900 chickens) — 0, 15 mls, third (1000 heads) — 0, 3 mls within 30 days. The fourth group (2400 chickens) — control. All chickens had numbers, on which the monthly weighing (tab. 14) was carried out{*spent*}.

From given the tables 14 it is visible, that in all terms of the account mass of a nurseling of experienced groups was higher, than control. It has had an effect and on such factor, as a lay. She{*it*} began simultaneously, but at different quantity{*amount*} of the hens in experienced and control groups. So, within the first month the lay began at 15, 85 % of pullets receiving an eleutherococcus, in control group at 7, 41 % of pullets.

In the second experience two-day time chickens (till 625 heads in each group) experienced group gave a liquid extract of an eleutherococcus on 0, 1 ml on a head within 20 days. The control group of chickens, were in identical conditions of a feeding and contents, stimulator did not receive. Batchly carried out{*spent*} weighing all population{*head*} (tab. 15). The chickens receiving an extract of roots of an eleutherococcus, in 45 days had a difference in alive mass with the control on 23, 3 %.

The safety of chickens of experienced group was higher. Than in the control, on 3, 76 %. From chickens of experienced group follow-up have received 34, 652 kg of alive mass, and the expenses ' on a stimulation have made 9, 6 roubles, or 27, 7 copecks on 1 kg of padding production.

On a Kurgan regional INFORMATION RETRIEVAL SYSTEM to experienced group of 6-day's chickens (4000 heads in experienced and 2000 heads in control groups) in potable water to a bird added 20 days on 0, 01 mls of an extract of roots of an eleutherococcus. In 20 days after termination{*ending*} a summer residence of a drug the weight addition of chickens of experienced group was 280, 1 g, control — 222, 4. The padding weight addition has made 25, 9 %. The safety of a population{*head*} of chickens of experienced group was higher, than in the control, on 4, 7 %.

In experience on 11-day's chickens (till 1000 heads in each group) in a forage of experienced group entered a liquid extract of roots of an eleutherococcus on 0, 15 mls on a head within 30 days. The feeding and contents of chickens of both groups was similar, but the control group a stimulator did not receive. The first 15 days of experience daily recorded eating of a forage by chickens. The account has shown complete eating of a forage by chickens of experienced group and on 1,3 % less by nurseling of control group. In 30 days alive mass of chickens of experienced group has made 327,5, control — 308,0 g, or is lower 6,3 %. The safety of a population{*head*} of experienced group was higher 1,7 %. A control slaughter and anatomic cutting bodies have shown, that in mass of internal bodies of an essential difference between groups was not except for mass testicle (tab. 16).

Alive mass of chickens of experienced group in 60-day's age 828, 0, in control — 796 g, or is lower on 4, 02 %. On experienced group of chickens is follow-up received{*follow-up obtained*} in alive mass of 30,72 kg; is spent 4, 5 л of an extract of an eleutherococcus of cost 36 roubles.

On Karachevsky to a chicken factory of the Kaluga area 2 groups of chickens (till 5100 heads in everyone) 60-day's age were selected for a stall-feed. In a forage of chickens of experienced group gave an extract of roots of an eleutherococcus on 0, 2 mls on a head within 15 days. The stall-feed proceeded 30 days. The feeding and contents of both groups was similar, but the control group of a stimulator did not receive. At the end of a stall-feed of all chickens have killed. Mass

of semi-gut body of chickens of experienced group has made 845, 2 g, control — 718, 1 or are lower on 17, 6 %. The chemical analysis of muscles has shown absence of differences between groups in mineral composition, some augmentation in muscles of chickens of control group of a moisture, and in muscles of chickens of experienced group of protein and ashes. At last the appearance of bodies was better.

In feeding state farm « Red Presnya » of the Moscow area have lead{*carried out*} experience on a background of a short-term stall-feed cocks (20 days). Experienced group included 1800. in control — 2424 cocks with average alive mass in groups 671. To experienced group of cocks with a forage gave till 0,2 mls on a head of an extract of roots of an eleutherococcus within 10 days. The control group of cocks a drug did not receive. Daily order the account of eating of forages, which has appeared at cocks of experimental group on 4,4 % above. Final alive mass of cocks of experienced group has made 1060 g, control — 997 or on 6.3 % is lower. A daily average weight addition 19,45 g and 16,3 g accordingly. From 1000 conditional cocks of experienced group is follow-up received{*follow-up obtained*} in alive mass of 63 kg.

Body height and weights addition of chickens - broilers after application by him{*it*} of an eleutherococcus. Икшудык production of meat of birds borrows{*occupies*} an outstanding place in business of maintenance, needs{*requirements*} of the population of the country by products of power supply. The difference of broiler cultivation and stall-feed of chickens is, that it{*him*} will carry out{*spend*} without transplantation of a nurseling in other premises{*rooms*}, that reduces stresses. Experience have lead{*carried out*} on the basis of state farm "Myasново" of the Tula area. Chickens of breed Dutch plimutrock till 10000 heads in experienced and control groups have placed in one cnicken-house. All conditions for groups were similar, but into a forage of chickens of experienced group entered a liquid extract of an eleutherococcus at the rate of 0,2 mls on a head within 14 days. The safety of chickens of experienced group was higher, than in control, 2,3 %.

At delivery of chickens on slaughter house from experienced group have accepted 8674 chickens with mass of a body (in test mass) 1231,4 g and 60 heads of alive mass 965. From control group have accepted 7701 chickens of test alive mass 1062.4 g and 206 chickens of mass 773. Mass of chickens receiving an eleutherococcus, was higher, than at control group, on 169 g, or 15,9 %.

Body height, development and weights addition turkey-poults, stimulated by an eleutherococcus. Alongside with research of the most rational contents and feeding Turkey-poults it is expedient to give drugs raising a general{*common*} resistance of an organism, promoting acclimatizations of birds to external conditions, to which the nurseling very much reacts. In state farm "Nedelinsky" of the Kaluga area have lead{*carried out*} test on turkey-poults white widely - breast breeds of 21-day's age. In experience there were 5 groups, till 500 heads in everyone. Contained all groups in one premise{*room*}, on a mesh sex. Potable water submitted to water-throughs continuously. Fed turkey-poults on norms Scientific Institute of poultry breeding for their age. In a forage of the first group added a powder of a root of an eleutherococcus on 0,1 g on a head per day, second — on 0,15 g, third — on 0,2 g on a head per day, the fourth group received in a forage a powder of leaves of an eleutherococcus on 0,2 g on a head, the fifth group of turkey-poults served the control. Stimulated 15 days. In 58-day's age have lead{*carried out*} a control slaughter of turkey poults. Killed till 10 heads from each group (tab. 17).

The most intensive body height was noted at turkey-poults, leaves, receiving a powder, of an eleutherococcus, then at receiving a powder of a root of a plant in a dose by(with) 0,2. The best payment of a forage in all groups was at the turkey-cocks. So, in the fourth group the daily average weight addition has made 249,1 % to the control, in third — 175 %, in second — 112,7 % and in first — 122,4 %.

Anatomic gut of bodies and weighing of internal bodies at a control slaughter of essential differences on mass of heart and liver rather to their alive mass between groups have not found out. In absolute and relative mass of Ferri lactases of an internal secretion (spleen, thyroid and

goitrous) too there was no essential difference. However in mass of ovaries at females and testicles of males had a tendency to rising at turkey-poults, receiving all drugs of an eleutherococcus. And it means, that the rising of alive mass of turkey-poults, receiving drugs of an eleutherococcus, was by a consequence of best use of nitrogen of a forage, improvement of metabolic processes as a whole.

Turkey-poults, the receiving drugs of an eleutherococcus, grew and developed normally (Куманов, 1958), whereas in control group they considerably lagged behind in body height and development.

In experiences on chickens and turkey-poults during their body height the similar results were received{*obtained*}. They testify that the drugs of an eleutherococcus (liquid extract of roots, powder of leaves and root of a plant) can be applied to a stimulation of a nurseling of birds of any age.

Economic account of efficiency of application of drugs of an eleutherococcus in an aviculture. Expenses of forages for 10 eggs. Definition of this index order in facilities{*economy*} Kurgan, Tyumen, Smolensk, Tula areas, where carried out{*spent*} experiences on the hens - layers. In each of them took into account, except for a lay, nutritional value of rations under condition of a similar feeding of the hens.

So in experiences on the hens layers 6 1/2 monthly age at case holding on 10 eggs in experienced group have spent till 2,27 forages units, in control — 2.59 forages. units, metabolic energy — 5746 kkal and 6574 kkal accordingly, the economy has made on fodder units 12,63 %, on metabolic energy — 12,75 %.

In experience on hens - layers 8 1/2-months of age on reception 10 eggs have spent in experienced group of layers 2,78 forages. units. In control — 2,85 forages. units. Metabolic energy — 6454 and 7003 kkal accordingly, the economy has made on fodder units 7,84 %, on metabolic energy — 2,6 %.

One of experiences of 1969 on the hens of breed a white leggorn 6 S-month of age the author results more detailed it{*her*}. In experienced group was 1326, in control — 1392 layers. In a forage of experienced group added till 0,2 mls on a head of a liquid extract of roots of an eleutherococcus within 14 days. The control group of layers received the same ration, but without a stimulator. The results of experience are given in the table 18.

For all period of the account from everyone 100 hens of experienced group have received follow-up till 204 eggs, or from all average population{*head*} for experience (1213 layers) 2464,5 eggs. Average general{*common*} egg mass monthly at the hens of experienced group made — 102, 1, at the hens of control group — 83, 96 kg.

In experiment with. By use спецкомбикорма on the hens 8Smonths of age have spent in experienced group of layers on 10 eggs 2, 36 forages. units. And 5990 kkal of metabolic energy. By the hens of control group — 2, 854 forages. units. And 7003 kkal of metabolic energy. The economy has made 17, 4 % on fodder units and 14, 5 % on metabolic energy.

Expenses of forages for 1 kg of a weight addition. On the Tula chicken factory for experience have selected chickens of 11-day's age till 1000 heads in experienced and control groups. In a forage to experienced group of chickens added an extract of roots of an eleutherococcus till 0,02 mls on a head, within 30 days Control group of chickens contained and fed the same as experienced, but stimulator she{*it*} did not receive. The chickens were breeds a white leggorn of one term of a conclusion. At disbandment of groups have lead{*carried out*} поголовное weighing. Alive mass цыпчат experienced. Than group was higher, than control, 4,49 %. At петушков of experienced group she{*it*} was higher 4,2 %. The safety of a population{*head*} of experienced group was higher, than control, 2,5 %. On cultivation and stall-feed 100 conditional петушков of experienced group have spent 4,11, control - 4,270 forages. ед. The economy has made 3,8 % on 1 kg of alive mass of a body in relation to the control.

In state farm "«Mjasново» of the Tula area in experienced group there were 9300, in control - 9400 chickens - broilers. To experienced group of chickens in a forage added 14 days a liquid extract of an eleutherococcus till 0,15 mls on a head per day. The control group received the same ration, but without a stimulator.

At delivery of chickens on slaughter house test mass of chickens of experienced group was 1378 g, control - 1342. Killing mass has made 100 conditional heads of chickens of experienced group 115,17 kg, control - 110,97 kg. Have spent forages on 1 kg of killing of mass on experienced group of 4,2 kg, on control - 4,45 kg. Cooled bodies of chickens of experienced group have lost of a moisture on 3,1 % less, than control.