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## CLOSTRIDIUM PASTE U RIANUM BACTERIA IN THE SOIL THE AMOUNT TO DETERMINE IMPORTANCE

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## **Annotation**

This article in farming in the soil organic substances in them of microorganisms their role \_ activities , in the soil going microbiological processes , in the soil occurring nitrogen collector microorganisms and them learning methods , free living nitrogen fixer from microorganisms Clostridium pasteurianum bacteria elective culture get using of soil fertility feature learning wide illuminated .

**Keywords:** Microorganisms activities, soil microorganisms, Azotofixation process, nitrogen of substances biological Change, Free living nitrogen fixers, Molecular of nitrogen fixation mechanism, nitrogenase enzyme of nitrogen fixation importance, Oil is acidic to dress up process.

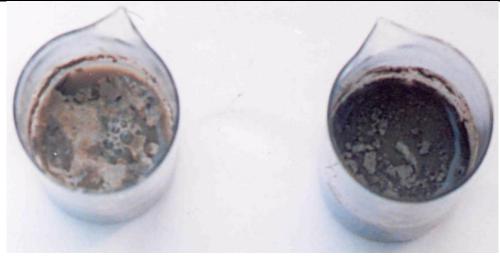
In farming of nitrogen fixation importance. Microorganisms by atmosphere of nitrogen appropriation, land on the face biological road with accumulative of the crop common to the amount big effect shows . That's why for atmosphere of nitrogen biological road with to be assimilated learning farming and biology for important important have has been from problems is one

Er on the face of plants to nitrogen has been yearly the need big is approximate  $\_$  to accounts according to land on the face plants one 100-110 million per year tons nitrogen Demand does it is Mineral fertilizers with while only 30% nitrogen to the soil come down it is

Nitrogen of collectors the atmosphere itself nitrogen absorbing proteins \_ synthesizes . These are proteins own in turn rotting bacteria by breaks down . Denitrifiers nitrates break up into the atmosphere nitrogen returns So so , nitrogen in nature turning around walks [1].

We are Yusupov Ibrahim Mirsaydalievich method according to Clostridium pasteurianum bacteria using of soil plants for How fertile condition in determining indicator as use possible that learning according to scientific our work two year during take we went

Yusupov Ibrahim Mirsaydalievich method . Of this for molecular nitrogen absorbing clostridium pasteurianum (Clostridium pasteurianum ) . determination for 1 g of glucose 100 g of soil dissolved in 50 ml of water adding clay  $\_$  become until it arrives mixed . This is a mixture spade into a Petri dish using put top smooth cover with fixed , then warm to 30°C in the thermostat one how many week is stored . Then the Petri dish cover open , mix smell will be seen . If from him if there is an unpleasant smell , in the mixture oil acid harvest that it was means  $\_$  The oil is acidic to dress up in the process gases (CO  $_2$  , H  $_2$ ) are released because of mud foaming stands  $\_$  Clostridium spore harvest doer rodshaped bacillus is a spore harvest to do stage his vegetative cell dukkah like remains . It is anaerobic in the circumstances oil acidic to dress up process provokes . This method two different content , that is long years during only organic fertilizer put and only mineral fertilizer put in soils we learned As a result very reliable evidence received  $\_$  That is only organic fertilizer applied in the soil to dress up process strong done increased [ 2-3]. But only mineral fertilizer applied in the soil vice versa to dress up process very weak that it has passed to see possible was ( Fig. 1).



a b

1- picture. "Clay preparation" method Clostridium pasteurianum (Clostridium pasteurianum). determination: a – not mineralized in the soil to dress up process strong that he went for mud foaming is standing; b - mineralized in the soil process weak that he went for foam no.

Natural in the circumstances oil acid harvest that it was in 1814 german scientist Chevrel determined by [4]. The oil is acidic to dress up in the process oil acid harvest in being alive organisms participation that he did and this biological process that in 1861 Louis Pasteur prove gave [5]. This is the process the following equation based on goes to:

$$C_{6}H_{12}O_{6} \rightarrow CH_{3}CH_{2}CH_{2}COOH + 2CO_{2}\uparrow + 2H_{2}O + 17 \text{ kcal}$$
 oil acid

Of these except oil  $\_$  acidic to dress up in the process milk and vinegar acids, ethyl and butyl alcohols, acetone and methane (CH  $_4$ ) is also separated comes out

The oil is acidic to dress up instigator of bacteria most of them external to the environment strong enzymes work releases \_ These are enzymes under the influence of cell phone is hydrolyzed ( decomposed ). Kletchatka and of starch disintegration as a result harvest has been simple sugars , above based on the indicated formula , oil acidic to dress up instigator bacteria . \_

The oil is acidic in training participating bacteria oxygenated in the circumstances live can't, that is they are anaerobic bacteria to the group enters \_ These are bacteria in nature wide spread out is dirty \_ water, milk, cheese, soil and another different in the environment occurs. They are spore harvest to do feature have, spores 1-2 hours \_ life even when boiled activities save remains.

The oil is acidic to dress up process one from the side useful if , the second from the side harm brings \_ Useful side this is it process using fatty acids , butyl \_ and ethyl alcohols , acetone and another products is taken . Bacteria some one types , including Clostridium \_ pasteurianum ( Slostridium pasteurianum ) molecular nitrogen absorbs . This is the process village economy plants for necessary has been nitrogen of compounds in accumulation very big role plays \_ Harmful side agar butter , cheese , milk and another to products oil acidic to dress up instigator bacteria down if left , they have harvest has been oil acid and another compounds under the influence of of products quality decreases . The oil is acidic to dress up of the process this shape people economy for very is harmful [ 6].

Yusupov Ibrahim Mirsaydalievich method using the II stage graduate student Usmanova Gulshoda Khan Ikramjon daughter the soil of the farmer's field learning according to scientific research works take is going Received results shown in Figures 2-7 below . Farmer's 5 ha husband from the area "Diagonal" method according to one different from 5 places in the distance received soil name studied .



Figure 2. Control-organic fertilizer soil



Figure 3. Sample 1 - without organic fertilizers soil



Figure 4. Sample 2 - without organic fertilizers soil



Figure 5. Sample 3 - without organic fertilizers soil



Figure 6. Sample 4 - without organic fertilizers soil



Figure 7. Sample 5 - without organic fertilizers soil

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Nitrogen -organic fertilizers (Fig. 2), the process of fertilization in the soil according to the Yusupov IM method is strongly realized. In the remaining samples (pictures 3 - 7), the curing process was not completed at all.

In conclusion , the farmer samples received in the field organic substances very less the fact that was determined . Here  $\_$  microbiological processes done does not exceed the soil wet storage feature decreased goes , in the soil plants for necessary has been food substances does not accumulate , as a result of soil productivity decrease , crops productivity less and poor quality will be

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