

## Fertility and Fruitfulness

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<p><b>Received</b> 10-04-2022</p> <p><b>Accepted</b> 26-04-2022</p> <p><b>Published</b> 09-05-2022</p>	<p><b>Abstract:</b> Utilization of organic fertilizers and untraditional agronomic ores is considered to be very important in the usage of present resources in the branch of agriculture wisely, preservation and increase of the soil fertility and feeding the plants. There exist natural resources of untraditional agronomic ores in more than 40 countries of the world and they are used in various branches of national economy.</p>	<p><b>Keywords:</b> Soil, Agronomic Ore, Mineral Fertilizers, Bentonite, Fertility, Temperature, Sorts Of Cotton Plant, Water, Norm, Experiment, Version, Agronomic Measure, Technology</p>
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### INTRODUCTION

Working out various agro technical methods that increase the fertility of the soil, besides the economic methods of using the natural resources, increasing the effectiveness of utilization of mineral fertilizers in agronomic technology of germinating of cotton and cotton complex is still remaining as vital questions.

A number of scientists have worked in this sphere. For example, we have determined the following in N.Urazmatov's researches on meadow soils of Fergana valley (1991): when the cotton plant C-6524 is 70-70-60% due to LFMV and the thickness of the plant is 120.000 per hectare, in 0-3-1 system, it increased to 4.5 centners per hectare when each hectare was irrigated 4 times in 900-950 m<sup>3</sup> per hectare, when the cotton harvest is 65-65-60% due to LFMV and 90.000 per hectare thickness.

In meadow brown soil conditions of Samarkand province, we have been able to see that we can get 28.0 centners of crop per hectare when the irrigating orders of highest fertility are 60-70-60 % moist due to LFMV, mineral fertilizers are N-240, P-100, K-120 kg/hectare, the plant thickness is 120.000 per hectare of the highest fertility. (E. Abdurahmonov [6; pages 210-211]).

The level of effectiveness of used agronomic measures can be seen in fertility of cotton plants. So due to the results of 3 years researches, under the influence of various agronomic measures, each cotton plant has its own cotton fertility. For instance, when Andijan-37 and Sultan sorts of cotton plant were fed with mineral fertilizers NPK 200-140-100 kg/h rather than ordinary fertilizers and irrigated in 70-70-60 %

irrigating norms due to LFMV, the average fertility of the irrigated control versions (7 and 10) in 3 years composed 34,4 and 34,8 cntners/hectare. In the versions (8 and 11) where mineral fertilizers NPK 150-105-75 kg/h were used with 750 kg/h of bentonite in the period of budding, the norms of mineral fertilizers were decreased to 25, under the the favorable influence of bentonite, we were able to get 37.8 and 38.9 centners of cotton harvest from Andijan-37 and Sultan sorts of cotton plant per hectare. in control versions (7 and 10) due to the increase of usual fertilizers with NPK 200-140-100 kg/h, we could get additional 3.4 centners of cotton crop from Andijan-37 and 4.1 centners of cotton crop from Sultan sorts of cotton plant.

So, in versions where after putting the mineral fertilizers NPK 150-105-75 kg/h and before ploughing the land we put 6000 kg of bentonite (9 and 12) we could germinate 38.4 centners of cotton crop from Andijan-37 sort of cotton plant and 38.9 centners of Sultan sort of cotton plant per hectare. We could get 4.0 and 4.6 centners per hectare of more cotton crop than the versions(7-10) with NPK 200-140-100 kg/h of mineral fertilizers.

In all the versions where the irrigating orders were 60-70-60 % due to LFMV we accomplished the same and we observed the decrease of cotton crop up to 1,1-2,0 centners per hectare due to LFMV. Because, in the versions with these irrigating orders, as we have mentioned above, as a result of incomplete destruction of mineral fertilizers in the soil with 60% moisture in the first stages of cotton growing due to LFMV, we can observe the decrease of mineral substances. As a result, growing, development of the plants of these versions keep behind and result in relative

decrease of cotton crop (Table -1). If we observe the cotton crop taken from the sorts of cotton plant, we shall be able to know that, in both versions where the land is irrigated in 70-70-60 % of irrigating norm due to LFMV, and when bentonite is put with other types of mineral fertilizers, the cotton crop of Sultn sort was only 1,0-1,1 centners per hectare more than the Andijan sort of cotton plant. Therefore, both types of cotton plant are equally fertile. The irrigating norms used in the experiment and other measures became very favorable.

In all the versions where the land was irrigated in the irrigating norm of 60-70-60 % due to LFMV even if we could observe the decrease in cotton crop, we did not mention any differences between them.

So, as a conclusion, we can say that, the agronomic measures used in the experiment i.e. agronomic ore as bentonite that economizes the useage of water and me neral fertilizers, gives the opportunity to get high and qualitative harvest from Andijan-37 and Sultan sorts of cotton plant.

**Table 1: Cotton Fertility, Centner per Hectare (2013-2015)**

Sl №	Sorts of cotton plant	Annual norms of mineral fertilizers, kg/hectare			Bentonite, kg/hectare		Cotton crop, centners/hectare				Additional harvest, centners/ hectare	
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Before ploughing	In the period of budding	2013	2014	2015	In average 3 years	Due the control	Due to 60-70-60 %
1	Andijan-37	200	140	100	0	0	33,9	33,5	35,4	34,3	-	-
2	Andijan-37	150	105	75	0	750	36,1	36,2	38,3	36,7	2,4	-
3	Andijan-37	150	105	75	6000	0	36,8	36,5	38,6	37,3	3,0	-
4	Sultan	200	140	100	0	0	34,8	32,5	34,8	34,0	-	-
5	Sultan	150	105	75	0	750	37,7	35,3	38,4	37,1	3,1	-
6	Sultan	150	105	75	6000	0	37,9	35,4	38,9	37,4	3,4	-
7	Andijan-37	200	140	100	0	0	34,0	34,1	35,0	34,4	-	0,1
8	Andijan-37	150	105	75	0	750	37,3	36,9	39,3	37,8	3,4	1,1
9	Andijan-37	150	105	75	6000	0	38,0	37,5	39,8	38,4	3,0	1,1
10	Sultan	200	140	100	0	0	34,8	34,3	35,2	34,8	-	0,8
11	Sultan	150	105	75	0	750	38,5	37,8	40,3	38,9	4,1	1,8
12	Sultan	150	105	75	6000	0	39,0	38,3	40,9	39,4	4,6	2,0

## REFERNCES

1. Abdurakhmonov, E. (1996). Agrotechnique of Akdaryo-5 in conditions of Samarkand province. In Problems of cotton growing (Pp. 210-211). Tashkent.
2. Atiporn, G., Chaipat, P., Uli, P. N. R. (2021). The Development of Administrators Affiliated with the Office of Non-Formal and Informal Education (NFE). *Review of International Geographical Education Online (RIGEO)*, 11(9), 250-258
3. Qarlibaevna, B. A., Yusupbay, A., & Sabirovna, K. K. (2020). About The Activity Tasks Of The Education System In The Republic Of Karakalpakstan. *Ижтимоий фанлар*, 2(3).
4. Uli, P. N. R. (2021). Development Of a Person's Spirituality in Dialogue with Another. *Zien Journal of Social Sciences and Humanities*, 1(1), 133-135
5. Uli, P. N. R. (2022). Ecology of the Soul: Culture, Morality, Spirituality. *Indiana Journal of Agriculture and Life Sciences*, 2(2), 5-8.

6. Uli, P. N. R., Islambek, S. (2022). HUMANISM OF SOCIOLOGY AND SOCIOLOGY OF HUMANISM. *Uzbek Scholar Journal*, 2, 11-14.
7. Uli, P. N. R., Islambek, S. (2022). HUMANITY AS AN EXPRESSION OF THE SPIRITUAL BEING OF HUMAN. *Uzbek Scholar Journal*, 2, 15-19.
8. Urazmatov, N. (1991). *Production of soil fertility in cotton fields of Fergana valley of Uzbekistan* (p. 150). Tashkent. Labour.
9. Алимбетов, Ю., & Камалова, Х. С. (2020). QARAQALPAQSTAN RESPUBLIKASI TA'LIM SISTEMASININ'ISKERLIK MA'SELESINI HAQQINDA. *Журнал Социальных Исследований*, 3(2).
10. Бердимуратова, А.К., Алимбетов, Ю., & Камалова, ХС. (2017). О СОСТОЯНИИ ОБЕСПЕЧЕНИЯ НАСЕЛЕНИЯ ПИТЬЕВОЙ ВОДОЙ И ЕГО ВЛИЯНИИ НА СОЦИАЛЬНУЮ УСТОЙЧИВОСТЬ ОБЩЕСТВА РЕСПУБЛИКИ КАРАКАЛПАКСТАН (НА МАТЕРИАЛАХ СОЦИОЛОГИЧЕСКОГО ОБСЛЕДОВАНИЯ НАСЕЛЕНИЯ РЕСПУБЛИКИ В МАРТЕ-АПРЕЛЕ 2016 ГОДА). *Актуальные проблемы многоуровневой языковой подготовки в условиях модернизации высшего образования*, 70-86.
11. Бердимуратова, А; „Массалы? м?деният социаллы? ?убылыс сыпатында, ВЕСТНИК КАРАКАЛПАКСКОГО ГОСУДАРСТВЕННОГО УНИВЕРСИТЕТА ИМЕНИ БЕРДАХА, 34, 1, 52-55, 2017,
12. Бердимуратова, А; „Экологический кризис Приаралья и проблемы его решения. „Экономика и статистика, „11-12, 70, 1997,
13. Бердимуратова, А.К., & Бердимуратова, С.П. (2021). ИСТОРИЯ. СОЦИОЛОГИЯ. ФИЛОСОФИЯ. ЮРИСПРУДЕНЦИЯ. *Вестник КГУ им. Бердаха. №1*, 50.
14. Бердимуратова, А.К., Алимбетов, Ю., & Камалова, ХС. (2017). НЕКОТОРЫЕ АСПЕКТЫ ДЕЯТЕЛЬНОСТИ ОРГАНОВ САМОУПРАВЛЕНИЯ ГРАЖДАН И ИХ ВЛИЯНИЕ НА СОЦИАЛЬНУЮ СТАБИЛЬНОСТЬ В РЕСПУБЛИКЕ КАРАКАЛПАКСТАН. *Актуальные проблемы многоуровневой языковой подготовки в условиях модернизации высшего образования*, 55-70.
15. Пирназаров, НР., & Баймурзаев, А. (2017). ФИЛОСОФСКОЕ МИРОВОЗЗРЕНИЕ-ЛОГИЧЕСКАЯ ОСНОВА ДУХОВНОСТИ. *Ученый XXI века*, 36.