International Journal of Engineering and Information Systems (IJEAIS)
ISSN: 2643-640X
Vol. 5 Issue 2, February - 2021, Pages: 162-164

Theoretical Approach To Determining The Demand For Land Leveling In The Bukhara Region

Kuchkarov Jurat Jalilovich[1], Nuriddinov Xurram[2], Ibodov Islom Nizomiy Ugli[3]

[1]Bukhara branch of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, the Republic of Uzbekistan
E-mail: qjurat@mail.ru

[2] Bukhara branch of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, the Republic of Uzbekistan
E-mail: qjurat@mail.ru

[3] Bukhara branch of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, the Republic of Uzbekistan
E-mail: islomi@mail.ru

Abstract— *The article gives the meaning of the leveling of irrigated lands and when carrying out the current planning using long base planners with the aim of agrotechnical requirements, it is justified by the existing formulas of the required number of long base planners in the Bukhara region. In addition to this, it is recommended how to make the most of the existing planning units.*

Keywords— productivity, disk, bucket filling coefficient, disk diameter, drawing prism. water saving, furrow irrigation, disk space, innovative technologies, the mechanic, long-base scheduler.

1. INTRODUCTION

From many years farmers are learning to increase fruitfulness of crops. In this aim they developed getting out wetness of soil, strengthen sandy lands, plaguing lands, planting seeds, working on rows, feeding the crops, watering, taking care of them and other agro technical action. So they getting improve the ameliorative condition of land.
Especially one can improve the productivity of causing bringing drought and its reason and fight against it. It should be build the theoretically and practically especially in improving fruitfulness of crops watering and getting out wetness and how to use the style of watering land.

2. MAIN PART

The cooperation of scientists, specialists and science achievements are having a great importance on providing results of works for improvement of meliorative state of lands. For example, the first president of Uzbekistan accepted 3932th Decree "About measures on complete development of system of improving ameliorative conditions of lands " on the 29th of October in 2007 and the state program for 2008-2012 years which is directed to increase works on the melioration branch , to improve lands and fertileness and 1958th Presidents' Resolution "About measures on widely using of water resources and improving ameliorative state of lands during 2013-2017 years". To provide effective execution of such Decrees Cabinet of Ministers accepted 39th Decree on the 24th of February in 2014 "About additional measures for providing effective execution State Program on wisely using of water resources and improving ameliorative state of irrigating lands during 2013-2017 years".In accordance of above given Decrees, to increase capacity of investment on the sphere of agriculture, to put into practice broad using of foreign modern techniques and technologies is one of the most important problems in Uzbekistan. We must promote effective using of modern foreign agricultural and irrigating techniques and technologies in our republic. These technologies bring innovative programs and news with themselves. [1]. Taking into account these land reclamation, land leveling the level of effective demand and use.

This is article based on importance of something the land and done it in the given time according to agro techniques demands the number of grader in something irrigated lands of Bukhara province is also based on given formulas. There are also given advice in using efficiently something aggregates. Something irrigated land makes condition of increasing fruit fellness of agriculture crops , not much work during irrigating the land and saving water, polishing quality row spaces and gathering crop quality with machines. Polishing soil several time mike land uneven when irrigate the land , in other word while tilling long furrow and after irrigating high – lowland and last year uneven will be formed. There are also observed some part of the field after irrigating sever al time. It may also achieved in good or quality something by long grader machines two or three times but it can't be smoothed by hanging grader machines. Smoothening the land in agro techniques time ameliorate the land.

Smoothing aggregate should be provided enough for usefully and smoothened the land in agro technique time on conclusion of several scientist general smoothening land consist of 35 .. 40% in our republic According to the observation in Vobkent , and G'ijduvon , region of Bukhara irrigating furrow cotton land in not smoothing fields moisture consists of in deep part of the land 8……12% in high part 10…15% that's why we can't achieve moisture in all part of crop it increased salt. This make a result of decreasing crop [5].

Smoothing crop land in agro technique time, irrigating crops, and polishing by mechanisms , increasing labor while gathering crops and providing product are lessened the price. According to the information of the researches of department "water culture and melioration " TIMI Bukhara Branch and [4]. A hector smoothened field price is formed by grader first time 45127 sum, second time 61884 by third time 78429 sum smoothened. Works of irrigating land quality in foreign countries are also done by long grader. Smoothened the land by this will be cheaper 2..2.5 time than other mechanisms according to research of department scientists a long grader's work size in a year consists of 96 hectares [8]. Nowadays there is no scientific proof smoothening the land in agro technique time by grader of crop fields concerning numbers.

PROCEDURE OF RESEARCH.

We prove smoothening aggregate numbers by grader PPA -3.1 in Bukhara region with exit formulas. As you see ,the width is B aggregate moves t hours with a speed, crosses the distance W polishes the field. So done work is like that [1].

$$Ws = B\vartheta t = 0{,}1\ B\vartheta t, \qquad \text{hectare/hour} \tag{1}$$

According to the above formula theoretical work is written following theoretical work is written following :

$$W_H = 0{,}1\ B_H \cdot \vartheta_H \cdot T_H \tag{2}$$

In this BH, VH, T H, -the theoretical width, movement speed time work .

If we pay attention to β, S6, τ coefficient it will be like that:

$$W_{TEXH} = 0{,}1 \cdot B_H \cdot \beta \cdot \vartheta_H \cdot \xi_\vartheta \cdot T_H \cdot \tau \tag{3}$$

Exploitation work result:

$$W_{экс} = 0{,}1 B_H \cdot \beta \cdot \vartheta_H \cdot \xi_\vartheta \cdot T_H \cdot \tau \cdot K_T \cdot \xi_{Ne} \tag{4}$$

According to the formula given above we shall determine productivity of work tractor BT-150, grader ППА-31, ws=0.64 time , semantic productivity of work Wsm=5.12 to change in a year.

$$W_{MAV} = W_{sm} \cdot n_{sm} \cdot D_{U,} ga/_{MAV} = 5{,}12 \cdot 2 \cdot 38 = 389 \quad \text{hectare/мав} \tag{5}$$

You can determine demand on aggregate when you determine productivity of seasonal work.

According to the first table we determine on the lose extent formulas demand on smoothening aggregate in Bukhara. So it formed 10946 if we take into consideration of irrigated land smoothened based on [7] 35-40% in a year. So that we consider aggregate number for smoothening the land by using [8] 20- formulas

$$n_{TA} = \frac{Q_\Phi}{W_{MAV}} = \frac{10946}{389} = 28.\text{pieces} \tag{6}$$

As a result of research works productivity of grader is formed 4,1…5,2 hectare in lands of Vabkent and G'ijduvon region. According our researches demand on long grader in Bukhara region is as follow. (1-table) from table you can see that providing with land graders in region is 58,7 % but most our farms are not provided by long graders, it's lesser 1,7 for demanding in region.

RESULTS OF RESEARCH.

Our calculations match with the information of Uzdaverloyiha ministry of water and agriculture of the republic of Uzbekistan. Based on this information 2,2 long grader is enough for 1000 hectare irrigated land.

Demand on graders in Bukhara region

1-table

№	District	The total irrigated area (1000)	Long base leveling	
			There is (pieces)	Is required (pieces)
1	Bukhara	27,367	19	28
2	Vobkent	24,792	17	25
3	Jondor	33,066	11	34
4	Kagan	18,643	16	19

5	Karakul	25,065	14	25
6	Karaulbazar	16,678	12	17
7	Olot	21,475	12	22
8	Peshku	22,756	7	23
9	Rometan	27,421	14	28
10	Shofirkon	28,402	24	29
11	G'ijduvon	27,074	16	27
12	Bukhara (city)	2,350	3	4
Total		275,089	165	281

3. CONCLUSION

Developing technologies and productivity of work can partly take a place of short a long grader. In other ways using grader productively of aggregate but in much region productivity is lessened because graders are not used and kept correctly. That's why for mechanizations working on these aggregates improving experience lectures and seminars should be organized. According to table given above graders are provided and used productively, the ameliorative condition of the land will be improved and water will be saved in irrigating the land.

4. REFERENCES

[1] Following documents which are approved by council of Ministers and regional authorities ''The state Resolution on wisely using water resources and improving ameliorative state of irrigating lands during 2013-2017 years''.
[2] Govermental documents on construction, reconstruction fixing works in the ameliorative systems and buildings,Tashkent-2015,page 56.