STUDY OF SOME BIOMORPHOLOGICAL PARAMETERS IN LENTIL GENOTYPES

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ABSTRACT
The article is about comparative study of some biomorphological (number of germination, blossoming in its 50 percent, 50 percent of bean appearing, plant height (sm), height till appearing of the first bean (cm), number of stems, number of seeds per plant, number of beans per plant, number of seeds in the bean, length of bean, weight of 100 seeds, yield) parameters of lentil genotypes with control genotype in Scientific Research Base of Apsheron.

KEYWORDS: lentil, genotype, biomorphological parameters, blossoming, yield.

1. INTRODUCTION
From legumes lentil could be shown as a food product, growing in our Republic. The seed of this legume is rich with carbohydrates, proteins, essential fatty amine acids, vitamins (especially E and B group vitamins) and minerals. Indicated substances are highly assimilated by human organism and have positive impacts to his development. Legumes play main role in the solution of protein problem. Lack of protein in diet has negative impact, in the result begins protein deficiency and sows some discords. These legumes can replace animal proteins deficiency. So using of these legumes is recommended widely in diet [H.J. Aghayev and et al., 1989; M.I. Jafarov and et al., 2000; T.Y. Mammadov, 1964; L.A. Amirov, Z.I. Akparov, R.S. Mirzayev, 2005; L.A. Amirov, R.S. Mirzayev and et al., 2014].

Soil and climate conditions diversity in different areas requests establishment of high productive, with resistance to unfavorable environmental factor, adapted, intensive type varieties for these regions. Therefore, world collection samples with different environmental source and new samples must be collected and studied, their superior features should be
determined by testing in different areas of our Republic and by breeding must be established favorable species for each region [R.S. Mirzayev, L.Ə. Amirov, A.A. Jahangirov, 2014; T.N. Huseinova, K.B. Shıkhalieva, 2015; R.S. Mirzayev, L.Ə. Amirov, 2015; Sh.E.Mammadova, H.M. Shikhlinksi, 2015]

2. MATERIALIS AND METHODS
During the study of some parameters in lentil genotypes have been used international descriptors. In research have been used 25 lentil genotypes of different source. Explored lentil genotypes have been studied comparatively with variety Arzu as a control plant. Research was carried out in Scientific Research Base of Genetic Resources Institute in Apsheron region of Azerbaijan.

3. RESULTS AND DISCUSSION

As the result of the research have been determined the germination of legumes as following: standard ARZU variety, genotypes F.2010-26, F.2010-95 100%, genotype F.2011-17 96%, genotype F.2011-20 92%, genotype F.2011-57 88%, genotype F.2011-37 85%, genotype F.2011-97 83%, genotypes F.2010-94, F.2011-51 82%, genotype F.2010-101 79%, genotypes F.2011-59 78%, genotypes F.2011-43, F.2010-91 77%, genotype F.2010-91 75%, genotypes F.2011-26, F.2011-35 74%, genotypes F.2011-18, F.2011-14 73%, genotype F. 2011-42 67%, genotype F.2010-81 60%, genotypes F.2010-96, F.2010-96 55%, genotypes F.2011-13, F.2011-13 54%, genotype F.2011-19 43%, genotype F.2011-41 38% sprunged. So inspite of the sowing was carried out at the same time the spring difference has been determined. The highest germination percent, i.e. 100 percent was determined in ARZU, genotypes F.2010-26 and F.2010-95.

In accessions was explored difference of 50 percent of blossoming time. It was determined that blossoming time of genotypes ARZU, F.2010-95 was in 28.04, F.2010-97, F.2011-57
was in 29.04, F.2011-17 was in 30.04, F.2010-94 was in 01.05, F.2010-91, F.2010-96, F.2011-18, F.2011-19, F2011-42 was in 02.05, F.2010-101, F.2011-20, F.2011-35, F.2011-37, F.2011-43, F.2011-57, F.2011-59 was in 03.05, F.2010-81, F.2011-13, F.2011-26, F.2011-41 was in 04.05, F.2010-19, F.2011-14 was in 05.05.


Also the height of explored accessions (legumes) was determined. It was determined that the plant height in genotype ARZU was 45 cm, genotypes F.2010-101, F.2010-81 was 21 cm, genotype F.2010-96 was 22 cm, genotypes F.2011-13, F.2011-15, F.2011-41 was 24 cm, genotypes F.2010-91, F.2011-17, F.2011-43 was 25 cm, genotypes F.2011-18, F.2011-42 was 26 cm, genotypes F.2010-26, F.2011-20, F.2011-35 was 28 cm, genotype F.2011-51 was 27 cm, genotypes F.2010-94, F.2011-26, F.2011-37, F.2010-95 was 29 cm, genotypes F.2011-14, F.2011-57 was 31 cm, genotype F.2011-59 was 32 cm, genotype F.2010-97 was 33 cm.

Plant height was determined during the time before the first bean appearing period. It was determined that the indicator in standard genotype ARZU was 18 cm, genotype F.2010-101 was 6 cm, genotypes F.2010-19, F.2010-95 were 8 cm, genotype F.2011-13 was 9 cm, genotypes F.2010-81, F.2010-96, F.2011-18, F.2011-19, F.2011-20, F.2011-41, F.2011-43 were 10 cm, genotypes F.2010-91, F.2011-35, F.2011-37, F.2011-42 were 11 cm, genotypes F.2010-97, F.2011-14, F.2011-17, F.2011-26, F.2011-51, F.2011-57 were 12 cm, genotype F.2011-59 was 13 cm, genotype F.2010-26 was 17 cm.


At the same time it was explored elements of productivity of lentil genotypes. It was determined that this indicator in standard ARZU was 632 gr, genotype Flip2010-19L 19,5 gr, genotype F.2010-26 - 83 gr, genotype F.2010-91 - 29,4 gr, genotype F.2010-94 - 49,1 gr,

Genotypes F.2010-91 and F.2010-96 died to the end of vegetation. Therefore it was not taken yield from them.

4. CONCLUSIONS
So as the result of research it was determined genotypes higher than standard variety (ARZU) for some bio morphological parameters. It is recommended their use both in breeding, establishment new high productive varieties and straight in farm.

REFERENCES


10. (Material is available in Azeri).