



Araştırma Makalesi/Research Article

Determination of the Effects of Supports in Forage Plant Production on the Manufacturers in Şanlıurfa

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Geliş Tarihi: 11.05.2018

Kabul Tarihi: 31.05.2018

Abstract

In animal production, feeding cost covers 70% of the total inputs. The best way to establish an economy in animal production is to reduce feeding costs. Thus, especially the weed and silage requirements in animal feeding should be supplied from within the enterprise.

As in almost all countries, forage plant breeding is supported within the scope of the support supplied for forage plant growing in Turkey to encourage the production of roughage. In this context, the following prices determined per decare per year for 2017 are that clover grown on barren conditions is 40 Liras; clover and sainfoin grown on irrigated conditions is 60 Liras; annual plants, silage annual plants, and silage barren corn are 40 Liras; artificial meadow and pasture facility is 60 Liras, and silage watery corn is 90 Liras.

This research examines the situation of agricultural enterprises in Şanlıurfa, Turkey and the actions about the funding supplied for the forage plant breeding. Among the manufacturers in the research area who got financial support, 22% received financial support for vetch, 7% for clover, 64% for bitter vetch, and 7% for silage corn. It was determined that 35% of the manufacturers who participated in the survey had access to irrigation. It was observed that the financial supports increased the forage plant breeding in Şanlıurfa, as in the whole country.

Keywords: Forage plant breeding, support, animal production, questionnaire

Şanlıurfa'da Yem Bitkileri Yetiştiriciliğinde Uygulanan Desteklemelerin Üretici Üzerindeki Etkilerinin Belirlenmesi

Öz

Hayvansal üretimde girdilerin % 70'ini besleme giderleri oluşturmaktadır. Hayvansal üretimde ekonomi sağlamanın en iyi yolu besleme giderlerinin azaltılmasıdır. Bu nedenle hayvan beslemede özellikle ot ve silaj ihtiyacının işletme içerisinde sağlanması gerekmektedir.

Kaba ye üretimin özendirme amacıyla hemen bütün ülkelerde olduğu gibi ülkemizde de yem bitkileri yetiştiriciliği destekleme kapsamı içerisinde bulunmaktadır. Bu kapsamda, 2017 yılında kıraç koşullarda yetiştirilen yoncaya yıllık dekar başına 40 lira, sulu koşullarda yetiştirilen yonca ve korungaya yılda dekar başına 60 lira, tek yıllıklar, silajlık tek yıllıklar, silajlık kıraç mısır için dekar başına 40 lira, yapay çayır mera tesisi yılda dekar başına 60 lira, silajlık sulu mısır için dekar başına 90 lira olarak belirlenmiştir.

Bu araştırma, Şanlıurfa'da hayvancılık yapan tarım işletmelerinin durumu ve yem bitkileri yetiştiriciliğine uygulanan destekleriyle ilgili eylemleri irdelenmiştir. Araştırma bölgesinde destek alan üreticilerin % 22'si adi fiğ, % 7'si yonca, % 64'ü Burçak, % 7'si ise silajlık mısır desteği aldığını ifade etmiştir. Anket yapılan üreticilerin % 35'inin sulama imkânının bulunduğu tespit edilmiştir. Yapılan desteklemelerin bütün ülkede olduğu gibi Şanlıurfa bölgesinde de yem bitkileri yetiştiriciliğini artırdığı gözlenmiştir.

Keywords: Yem bitkileri yetiştiriciliği, Destekleme, Hayvansal üretim, Anket.

Introduction

Şanlıurfa, located in the east of Turkey, is one of Turkey's leading province for animal production. Şanlıurfa has suitable ecological conditions for the cultivation of all kinds of forage plants, however the forage plant breeding is not carried out at a desired level. The roughage requirement for animals is met by the other regions of Turkey (Açıkgöz et al., 2005).

Meadow pastures covering large areas in the region have been regarded as the only feeding source for many years and the region's animal husbandry has been conducted based on this source. As a result of the unconscious use of these resources, the region has lost its efficiency and has become inefficient. The pasturage applied for centuries has weakened the vegetation cover of the grazing areas of the region and the pasture plants providing high-quality grass was lost due to overgrazing and



replaced by poisonous, thorny, and short-lived plants that animals don't prefer to eat such plant species (Genç and Baytekin, 2007).

In order to meet the roughage requirement of animals and eliminate the overgrazing oppression of pastures, it became a requirement more production of forage plants. In terms of obtaining grass and silage that are necessary for animal production more economically and improve the soil properties by applying crop alternation, the forage plant production– which is within the scope of grant and financial supports – has improved in almost all areas from seeding to mechanization when compared to past periods.

Improvements have been observed in the forage plant breeding because of the financial supports provided by the Ministry of Food, Agriculture and Livestock of Turkey since 2000. Depending on the development of livestock, there is a need for manufacturer questionnaires to properly analyze the developments in the forage plant breeding and to be able to analytically see the functions of the supports. This research was carried out in Şanlıurfa to observe the effects of the forage plant supports from past to present on attitudes of the farmers.

Materials and Methods

This research was carried out as a face-to-face questionnaire with leading farmers selected from the center villages of Şanlıurfa. Questionnaire focused to investigate the effects of forage plant supports on planting and production and to test the manufacturer attitude during the 2016-2017 breeding season. One hundred farmers were interviewed with face-to-face questionnaires and the assessment of the results was made using one hundred questionnaires after excluding the results deviating from the mean. The questionnaire form includes demographic questions about age, education and awareness of farmers. The questionnaire results were evaluated using 'Survey Percentage Calculation' program.

The questionnaire study was conducted in the central villages of Şanlıurfa, which include Çamlıdere, Kabahaydar, Tülmen, Kıyas, Mamuca, Uğurlu, Açıkyaşı, Kızılburç, Yardımcı, Yağmurlu, Altınbaşak, Yiğınak, Dağyanı, Payamlı, Akziyaret, Karaali, Karataş, Hamurkesen, Konuklu, Şenocak, Anaz, Sultantepe, Mağaracık, Kaplan, Türkmen, Apaydın, and Uluhan.

Results and Discussion

Changes in Animal Production Statistics

Şanlıurfa has a big potential for animal production because of important changes have occurred in the animal population and with the change in irrigated areas as well (Table 1).

Table 1. Change in animal numbers in Şanlıurfa with respect to years

Year	Animal Species		
	Cow	Sheep	Goat
1995	115,676	1,662,896	265,663
2000	138,740	1,512,878	171,040
2005	128,308	1,500,167	175,700
2010	146,931	2,167,700	207,662
2015	221,456	1,519,812	230,091
2016	236,386	1,562,352	221,999

Thanks to the development of irrigation possibilities and vegetable production, especially the developments in cotton farming, the number of cattle have doubled while the numbers of sheep and goat have slightly decreased in Şanlıurfa (Anonim, 2017). Modern dairy cattle enterprises established in recent years have played an important role in this increase. In fact, the cattle population has also changed in terms of race. While the number of indigenous races has declined, culture races and hybrids have constantly increased. Partial decreases in the number of sheep and goats are due to the



removal of the fallow pasture in irrigated areas and the reduction of the animal feeding costs in the semi-intensive systems used in the sheep and goat breeding.

The development of the closed-system cattle-raising in the region has led the production of roughage. Especially dry grass and silage are the most important items in animal feeding. For the animal production, the supply of roughage from within the enterprise plays an important role in the reduction of animal breeding costs. Therefore, forage plant growing is included in the main activities of the enterprises conducting intensive livestock farming. However, when roughage resources of the current animal population are considered, harvesting residue becomes important. Also, the widespread use of these poorly digestible materials leads to the use of more energy-rich feed in the animal feeding, which significantly increases the costs of production.

Change in Forage Plant Breeding

There is a total of 1.86 million hectares area in Şanlıurfa and 59% of this surface area is constituted by agricultural land, while 13% is covered by pastures. Forest areas are below 1% (Anonim, 2017). In Şanlıurfa, the prevalence of erosion, rocky, and rocky terrain is as high as pasture areas. In the region, forage plant breeding has been supported for a long time. It is noteworthy that the supports lead to significant increases in the forage plant breeding (Table 2).

Table 2. Change in forage plant breeding in Şanlıurfa with respect to years (decare)

Year	Vetch	Sainfoin	Clover	Corn	Bitter vetch	Oat	Triticale
1995	-	889,530	2,140,100	-	-	-	-
2000	-	1,075,000	2,508,000	-	-	-	-
2005	2,500,000	1,100,000	3,750,000	2,000,000	20,000	-	-
2010	4,288,400	1,570,000	5,668,107	2,937,336	99,508	825,512	52,283
2015	4,365,182	1,914,940	6,620,459	4,231,233	39,248	867,895	76,662

Improvements in dairy cattle and supports given to forage plants have significantly increased forage plant breeding. Vetch, sainfoin and corn planting have been doubled. Oats and triticale planting have also increased for the grass production, while Italian grass and Sorghum & Sudan grass production are recently included in the statistics.

The effects of the financial supports are important in the increase of planting forage plants. In addition, the shift of the livestock enterprises to forage plant breeding due to increasing roughage costs is also noteworthy.

Questionnaire Results – Individual Properties

The mean age of the farmers who participated in the questionnaire was 57.3. In rural areas where the youth usually work in different sectors, the aging of the farmer population is the most important problem in Şanlıurfa, as in Turkey and all over the world.

Table 3. Information on demographic specialties of the participants (n=100).

		Rate (%)
Age	<20	0
	20-30	8
	30-40	18
	>40	74
Education	Primary Education	64
	Literate	29
	University	7

Among the individuals included in the questionnaire, 29% were literate, 64% were primary education graduates, and 7% were university graduates (Table 3). No high school graduates were

found among the participants. The educational background of the farmers is an important problem in the adoption of the innovations in Şanlıurfa.

Questionnaire Results – Enterprise Characteristics and Manufacturer Tendencies

In the study, the share of the forage plant seeding was 9.6% in the total cultivated land of the farmers who produce forage plants. It was observed that 22% of the manufacturers benefiting from the support cultivated vetch, 7% alfalfa, 64% bitter vetch, and 7% silage corn (Figure 1).

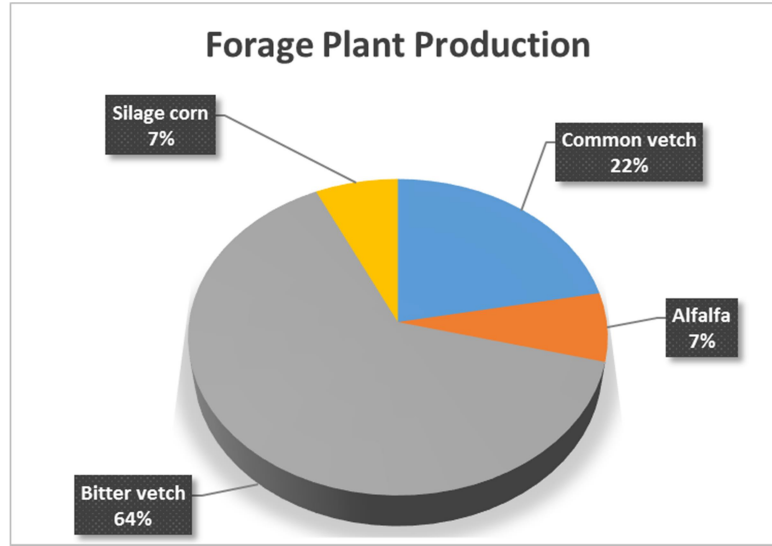


Figure 1. The plants produced by the participants.

Of the producers who participated in the survey, 35% had irrigation facilities and the rest of the producers carried out dry agriculture (Figure 2). This also manifests itself in clover production. Although there has been an over two-fold increase in the clover planting areas due to the support, the number of manufacturers benefits from the clover support remains at very low levels.

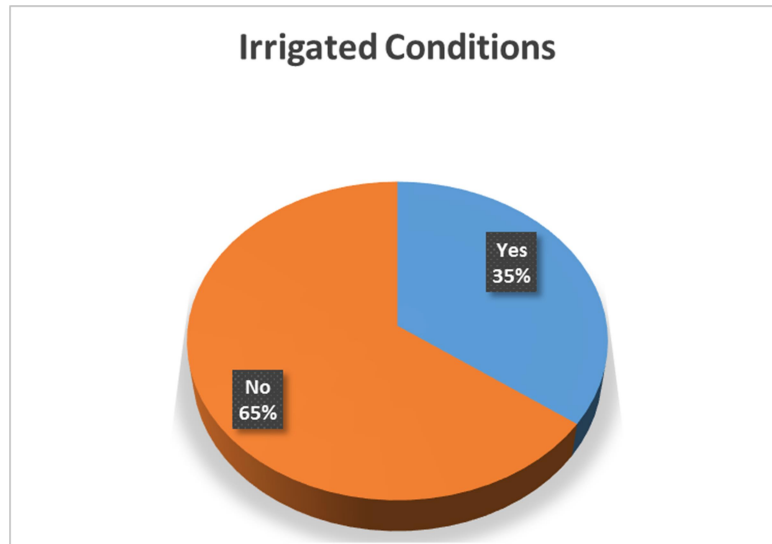


Figure 2. The rate of irrigation practices in forage plant production.

It was determined that almost all manufacturers had information about supporting forage plants according to the responses received from the manufacturers about their level of knowledge on the situation and the source of their knowledge. The sources of information are listed as village headman, ministry provincial organization, agricultural chambers, and neighboring manufacturers. The awareness of the farmers of the innovations is significantly low. In fact, it was observed that 29% of the manufacturers received information about the forage plant supports from the Provincial Directorate

of the Ministry, 21% from the Chamber of Agriculture, 36% from the village headman, and 14% from their neighbors, although access to the information is available through written and visual media, as well as the Internet upon its announcement (Figure 3).

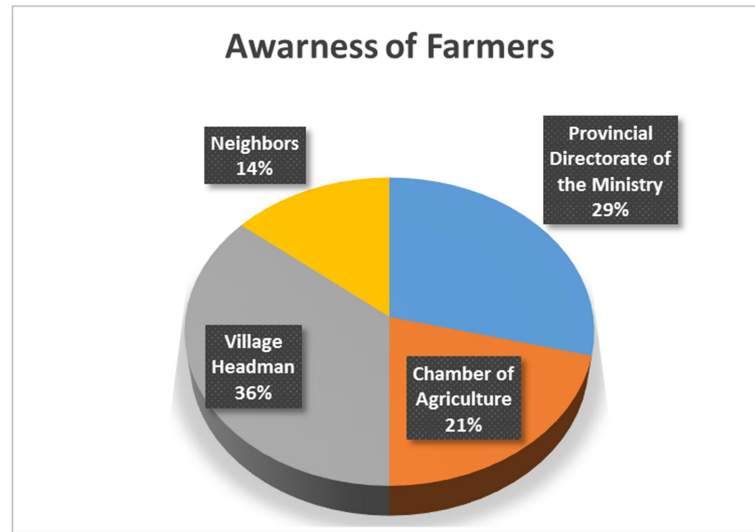


Figure 3. The awareness of farmers about supports of forage plants.

When questioned about the continuation of supports, 93% of the manufacturers stated that they could breed more forage plants if the situation continued its course. This finding reveals that supports are the main influential factor in the forage plant breeding. In fact, half of the manufacturers stated that they could not breed forage plants if the supports are discontinued, and half of the manufacturers stated that they carried out forage plant breeding just for the supports (Bağcı, 2009).

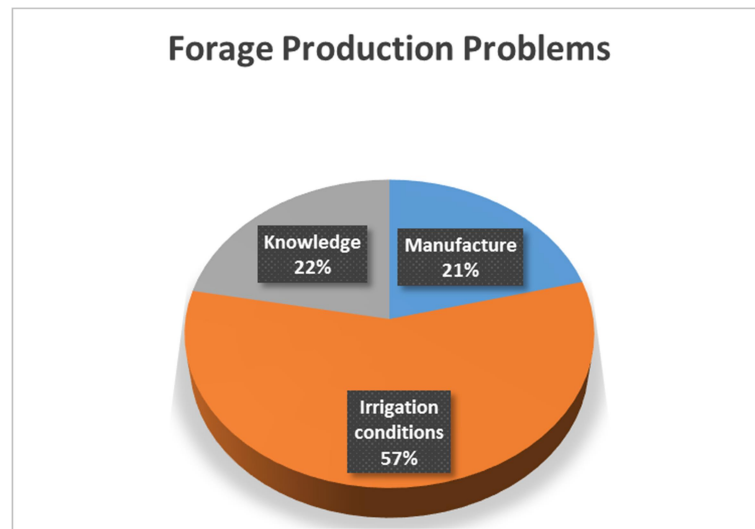


Figure 4. The problems in forage plant production based on the answers of participants.

The examination of the effects of the supports in the forage plant planting on the animal production showed that the number of the animals of 57% of the manufacturers increased and the amount of animal products obtained by 71% of the manufacturers significantly increased. Examining the problems related to the roughage production, 21% of the manufacturers pointed to marketing, 57% to irrigation, and 22% to the lack of information. There wasn't any problem encountered in seed and machinery equipment (Figure 4).



Conclusion

The most important share in the use of inputs in animal husbandry is animal feeding costs. Roughage costs play an important role in total animal feeding costs. Cheap roughage sources are meadow pastures and forage plant seeding fields (Avcıoğlu and Soya, 1992). For producing high-quality roughage, remedying the current roughage deficit, and developing the animal husbandry in Şanlıurfa, the supports must be continued for the field crops cultivation area and increased with the studies for their widespread applications.

To this end, more importance should be attached to forage plant breeding, considering its contribution to meeting the crude feed need of the animal husbandry in the region, in addition to its advantages in increasing the organic matter content of the soils in the region and thus, meeting the nutrient requirements of the plants that will go into crop rotation. Therefore, information should be conveyed to the farmers to raise their awareness of the issue. The greater support for cotton growing than that for the forage plants, leads to an increased interest in cotton growing especially in irrigated areas. Therefore, it is beneficial to increase the amount of support for forage plants (Sabancı et al., 2010).

In conclusion, the survey revealed that the manufacturers considered the amount of support insufficient and planned to increase the forage plant cultivation areas if the support continues and increases. It is necessary to increase the amounts of support, considering that the most effective factor for farmers in deciding on the production of forage plant is support.

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