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الجمهورية اللبنانية

مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام



W° 204

GOVERNMENT OF LEBANON

OFFICE OF ANIMAL PRODUCTION - BEIRUT

PLAN FOR ASSISTING THE OFFICE OF ANIMAL PRODUCTION
IN INCREASING FORAGE SUPPLY IN LEBANON

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

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INTRODUCTION

One of Lebanon's most important problems in a well balanced agricultural program is how to produce with the resources available, maximum sustained yields of animal and animal products. There are just two ways of doing this:

- 1- Through improving the germ plasm of the animals.
- 2- Through improved feed and feeding.

To concentrate on the first of these and neglect the second would be an extremely serious mistake; the two must go hand in hand. However, improvement in the forage supply must be accomplished first.

In connection with the second way concerning the improvement of feed supply, the Office of Animal Production is now carrying out forage experiments on irrigated and dry lands to find out the suitable forage crops which suit the climatic conditions prevailing in these areas. The scope of these experiments and available results can be summarized in the followings:

1- Experiments on irrigated lands:

Available results indicate the success of growing mixed pastures of Tetraploid Italian Ryegrass (Lolium multiflorum) in combination with Red Clover (Trifolium pratense). These pastures are highly productive and nutritive when compared with the common native forage crops.

2- Experiments on dry lands:

Seeds of 40 dryland forage species obtained from California, U.S.A. are sown in Qaa area. These species belong to groups of Wheatgrasses, Bluestems, Gramagrasses, Panicgrasses and Bromegrasses. It is hoped that some of these species will be successfully adapted to the prevailing climatic conditions in this area .

PLAN FOR ASSISTING THE OFFICE OF ANIMAL PRODUCTION
IN INCREASING FORAGE SUPPLY IN LEBANON

The plan can be divided into four essential scopes:

- I - Increase of forage supply by intensive forage culture in 1000 hectares of agricultural lands under irrigation.
- II - Conversion of 1000 hectares of drylands in Qaa to forage production.
- III- Reseeding and renovation of 1000 hectares of natural ranges.
- IV - Forage preservation.

I - Increase of forage supply by intensive forage cultures in 1000 ha. of agricultural lands under irrigation.

The successful mixed pasture (Tetraploid Italian Ryegrass/Red clover) resulted from the experiments carried out by the Office in Bekaa can be grown in areas near the three milk collecting centers now being established.

The cultivation of the suggested 1000 hectares with the new pasture required the followings:

		<u>Cost in \$</u>
<u>Seeds</u>	: Seeds of Tetraploid Ryegrass and Clover	30,000
<u>Fertilizers</u>	: Organic manure and chemical fertilizers	60,000
<u>Agric. machinery</u>	: 6 tractors with complete agric. equipments	36,000

II - Conversion of 1000 hectares of drylands in Qaa to forage production

The suggested 1000 hectares can be cultivated with dryland forage species. This project required:

<u>Seeds</u>	:	30,000
<u>Fertilizers</u>	: Organic manures and chemical fertilizers	60,000
<u>Agric. machinery</u>	: Using the equipment mentioned in (I)

III - Reseeding and renovation of 1000 hectares of natural ranges

Natural ranges of Lebanon are showing continuous deterioration as a result of overgrazing, agricultural negligence, and erosion. For the conversion of the suggested 1000 hectares to highly productive ranges, proper management by reseedling, renovation, and protection is needed. This project required the followings:

	<u>Cost in \$</u>
<u>Seeds</u> :	30,000
<u>Fertilizers</u> :	90,000
<u>Agric. machinery</u> : Using the equipments mentioned in I
<u>Fences for protection:</u>	30,000

IV - Forage preservation

The excess of green forage produced from pastures and ranges after feeding animals besides areas grown mainly for preservation, can be preserved by two methods: Haymaking and grass silage process.

Haymaking : Hay can be produced by using forced heated air and this process required the following items:

<u>Forced heated air installations</u> :	3 units	60,000
<u>Transportation</u>	: 6 big trucks	80,000

Grass silage: Silage can be produced by using simple and inexpensive silos. Dairy farmers can be helped financially to construct silos in their dairy farms.

TOTAL COST OF THE PROJECTS

	<u>Cost in \$</u>
<u>Seeds</u>	90,000
<u>Fertilizers</u>	210,000
<u>Agric. Machinery</u>	36,000
<u>Forced heated air units</u>	60,000
<u>Trucks</u>	80,000
<u>Range fences</u>	30,000
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Total	506,000

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