

## THE EVALUATION OF HORTICULTURAL EXTENSION IN HANOVER REGION OF GERMANY

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### Abstract

All over the world, one of the main purposes of extension is to increase the level of living standards of the rural people through informal education. In Germany, the Ministry of Agriculture, Chamber of Agriculture, and private extension institutions are responsible for agricultural extension services. Out of the some states, the private extension sector is developing rapidly but it is not alternative to the current extension system in the country. In Hanover Region of Lower Saxony State, The Chamber of Agriculture plays a significant role and functions critically in terms of organisation of the horticultural extension. The purpose of this paper is to examine the extension activities implemented by the Agricultural Chamber for horticulture sector in Hanover Region of Lower Saxony State of Germany. In the study, it is determined that the Chamber is the main actor and plays an important role in extension for horticultural sector in the region.

**Keywords:** Agricultural extension, horticultural sector, Chamber of Agriculture, Hanover, Germany

### Almanya'nın Hannover Bölgesinde Bahçe Bitkileri Yayımının Değerlendirilmesi

#### Özet

Tüm dünyada yayımın temel amaçlarından biri kırsal nüfusun yaşam standartlarının düzeyini yaygın eğitim yoluyla yükseltmektir. Almanya'da tarımsal yayım hizmetlerinden Tarım Bakanlığı, Ziraat Odası ve özel yayım kuruluşları sorumludur. Özel yayım ülkede bazı eyaletler dışında hızla gelişmesine rağmen mevcut yayım sistemlerinin alternatifi durumunda değildir. Aşağı Saksonya Eyaletinin Hannover Bölgesinde bahçe bitkileri yayımı ve organizasyonu konusunda, Hannover Ziraat Odası önemli rol ve işlevlere sahiptir. Bu çalışmanın amacı Aşağı Saksonya Eyaletinin Hannover bölgesinde bahçe bitkileri sektörüne yönelik olarak, Hannover Ziraat Odası tarafından yürütülmekte olan yayım faaliyetlerini incelemektir. Çalışmada Ziraat Odasının bölgede bahçe bitkileri sektörüne yönelik olarak yürütülen yayım çalışmalarında temel aktör olduğu ve önemli role sahip olduğu belirlenmiştir.

**Keywords:** Tarımsal Yayım, Bahçe Bitkileri, Ziraat Odası, Hannover, Almanya

### 1. Introduction

The Federal Republic of Germany, consisting of 16 federal states, is situated between the countries of Central and Eastern Europe. Lower Saxony is the second largest state of Germany. It has 7.5 million inhabitants and Hanover is the capital city. At the same time, the Lower Saxony is a large agricultural state. The State has four provinces and three of them located in Hanover region which are named as Luneburg, Brunswick and Hanover.

In this region, arable land is about 1,7 million hectares and 41,000 farms are larger than one hectare. In Hanover region, there are 5,419 farms which are larger than one ha (Rhein, 2000). The size of open area (arable

land) is 23,651 hectares. The shares of vegetable, fruits, ornamental plants, nursery and seedlings are 44,7%, 45,9%, 2,7%, 6,6% and 0,1%, respectively. The ornamental plants dominate (74.8 %) the greenhouse production. The other crops produced in the glasshouse are vegetables (12,8%), nursery (11,6%) and seedling (0,8%). The value of horticultural crops is very high even though the cultivated area of these crops is low. In fact, this is an indicator of the production intensity. For instance, about 1.0 percent of total cultivated area was devoted to horticultural production, but the contribution of these crops was 16 percent in the total value of agricultural crops.

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It is well known that intensive production such as horticulture requires much more technical knowledge compared to other agricultural crops. For this reason, extension activities for the horticultural plant production requires relatively different (i.e. more information support) approach to farming comparing to the other agricultural crops. Furthermore, there is a very close relationship between net income and agricultural support policy. In the line of agricultural policy, the Federal government relatively allocates more supports to horticultural growers. Government support per hectare is equal to half of the value of agricultural crops. It is therefore the net farm income per hectare is the sum of the total crop value and government support on the basis area.

## **2. Horticultural Extension in the Region**

All over the world, one of the main purposes of extension is to increase the level of living standards of the rural people through informal education (Ozcatalbas and Gorgen, 1998).

Extension has helped farmers' needs on agricultural information and responded to new market opportunities (Snapp, 2004). In Germany, agricultural extension services are provided by the Ministry of Agriculture, and Chamber of Agriculture and several private extension institutions. The private extension system (or services) is developing rapidly, but it is not alternative to the current extension system in the country.

Extension activities for horticulture cover vegetables, fruits and ornamental plants. Horticulture is one of the major agricultural activities in Hanover region. Generally rural and agricultural extension and also horticultural extension services are under the responsibility of the Chamber of Agriculture in Hanover and Lower Saxony. Extension system, implemented by the state is accepted as one of the best in Germany (Bruns, 1999).

Extension service for horticulture sector is mainly carried out by the Chamber of Agriculture of Hanover. It can be named "farmer-union based extension system" and

applied in both Hanover Region and Lower Saxony state. The Chamber of Agriculture of Hanover (LandWirtschaftskammer Hannover-LWK), located in Hanover province is responsible for extension activities in three provinces. The Chamber is the biggest European chamber with 1350 employees, around 400 staff work in the Main Office (Centrum) of the Chamber in Hanover (Rhein, 2000). The majority of staff work in the agencies of county, district agencies and forestry agencies and research institutes, education and field experimentation (Rhein, 2000; Märkisch, 1999).

The Chamber has 6,307 members and about 47,8 percent of the member produce vegetables. The shares of growers producing fruit, ornamental plants, nursery and seedling are 27.1, 17.5, 7.1, and 0.5 %, respectively. The Chamber has 3 institutes, 5 district offices, 26 county offices and 12 forestry offices. These institutions play an important role in terms of implementation of extension activities.

The Chamber aims to improve "the agriculture and living standards of farmers according to the interests of society". Education and advanced training courses called "green professions" as well as various advisory services are the most important duties of the Chamber. The most important tasks and functions of the Chamber, can be briefly stated as (Rhein, 2000; Ozcatalbas, 2000):

- to organise and apply extension services,
- to train extension workers (in the centre of training of Ahlem and Main Centrum of the Chamber for extension workers and farmers),
- to conduct research (research institute of Ahlemer and LUFA Hameln),
- to provide contact among research institutes,
- to provide contact with universities (Hanover, Munich and Berlin) and
- to improve contact with international research institutes (Denmark, The Netherlands)

2.1. Role of the Ministry in Extension

The budget of the Chamber comes from subscriptions, fees and state subsidies. Many specialists are demanded by the growers for extension work and training and growers need to pay fee for these service. About 75% of the Chamber budget was devoted to staff salary. (Rhein, 2000).

The Ministry of Agriculture supports financially to the extension and research activities and contributes about half of the Chamber's total budget. In the sake of this support, the Chamber conducts some research studies in its own research institutions and presents the research results to Ministry of Agriculture. The remaining part of the Chamber's budget comes from extension services paid by growers (20%), annual grower fees (subscriptions-30,4%) and the Chamber own contribution (4,5%) (Rhein, 2000; Ozcatalbas, 2000).

The functions of the Ministry in the non-governmental extension organisation system are to support financially to extension service, to conduct Research and Development (R&D) to organise fair and exhibitions as national and international levels to introduce and disseminate of new technologies, to act together with federal government to apply common agricultural policy, to develop national information

networks and to prepare infrastructure to join with the international information networks. The generation (produce) and storage of information are realised by Federal Ministry of Agriculture, Lower Saxony Ministry of Agriculture and Chambers of Agriculture in order to conduct and implement macro level plans and to provide suitable atmosphere to the receivers during the extension services.

2.2. Extension Organisation in the Region

The horticultural extension organisation of Hanover region can be divided into two main fields (Rhein, 2000; Ozcatalbas, 2000):

1. Horticultural extension (all horticultural extension & research activities)
2. Agricultural extension excluding horticulture (extension is oriented only to agriculture but not horticulture)

As it shown in Figure 1, The Chamber is divided into six departments. One of the most important departments is Horticulture and another crucial one is Education and Extension. This department is supported by 26 county (Kreisstellen) offices and two research institutes (Lufa Hameln & Ahlemer). The tasks of other departments are administrative and technical fields.

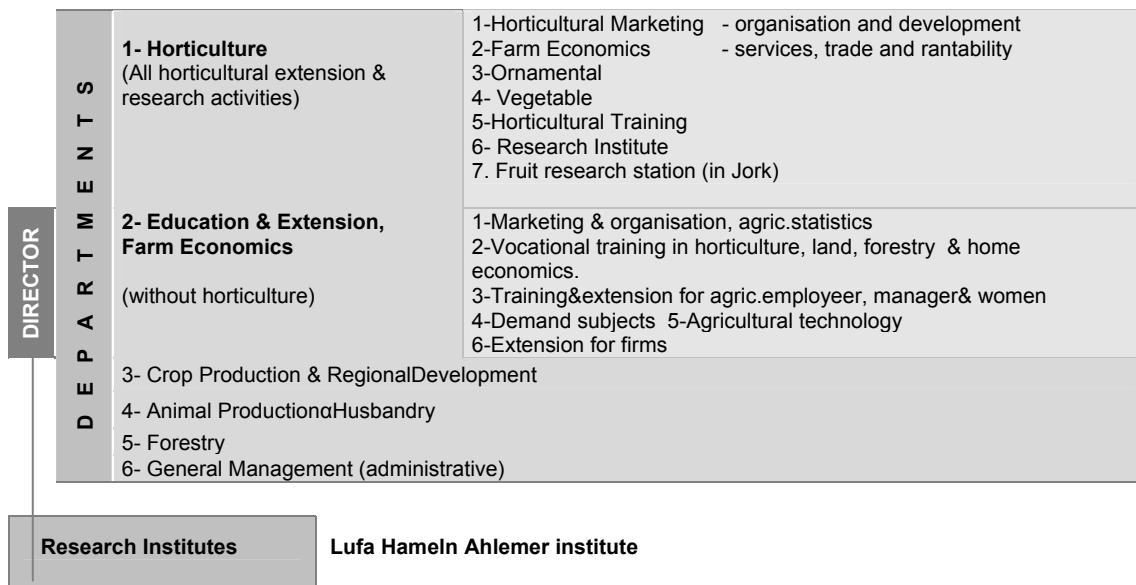


Figure 1. The Horticultural Extension Organisation of the Chamber

### 3. Horticultural Department in the Chamber

As already discussed in the previous section, the Chamber pays special attention to the horticultural production. For that reason horticultural extension activities are planned and implemented by the Department of Horticulture which is located at the main office of the Chamber. The role of the Department is crucial for horticultural growers in Hanover region.

The Department of Horticulture can be seen in Figure 2. It has currently 130 staff of which 110 people are researchers and 20 people are extension specialists, ten out of 20 extension specialists work as a full-time basis. They are permanently worked in the region and are mobile with their cars. Full-time extension specialists try to determine growers' problems at the farm level and produce solutions for these problems. About seven out of ten full-time extension specialists work in fruit (orchard) production and three of them work in the ornamental plants. The remaining extension specialists work part time in extension and administrative works.

For example, two of the part time extension staff work in vegetables. One of them is responsible for asparagus (spargel), which is one of the most important crops in the Lower Saxony in terms of production, consumption, and profitability.

#### 3.1. Organization of the Department

The head of Horticulture Department has 12 units and two extension circles which are called EDV-extension circle and Horticultural extension circle. The main tasks of EDV-Extension circle are to manage communication network and to provide connection between the Department and the growers. At the same time, this extension circle provides connection between the extension workers and researchers. These are given below;

#### I. The Units of Head of the Department

1. Nursery
2. Vegetable production, quality and water saving,
3. Intensive vegetable production and seed production techniques-methods,
4. Asparagus and field vegetable,
5. Horticultural production techniques and methods,
6. Quality control of vegetables and fruits,
7. Ornamental plants,
8. Intensive information for horticulture growers,
9. Service productivity in horticulture,
10. Farm economics and EDV,
11. Retail trade and selling and
12. Staff management.

#### II. EDV –Extension circle has a role on consultation,

#### III. Horticultural Extension Circle has five subjects. These are;

1. Production,
2. Farm economics,
3. Marketing,
4. Extension and
5. Production and marketing.

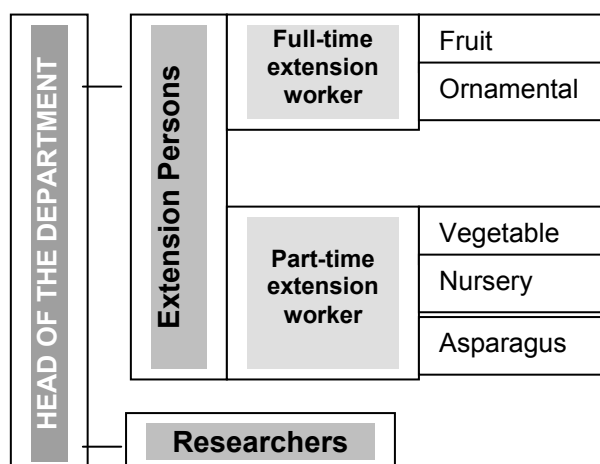


Figure 2. Distribution of staff of the Department

There is a specialist for each subject in the extension circle. The main task of Horticultural extension circle is to solve problems of growers. If the problem can not be solved at the extension circle, then the problems are sent to the research institutes.

In the region, horticultural research activities are implemented by the University of Hanover, Ministry of Agriculture, and the Chamber which have horticultural research institutes. However, the most important research units belong to the Chamber followed by the university and the Ministry of Agriculture.

### *3.2. The Strength of Linkage of the Chamber*

The level of the relationships between the farmers and the Chamber can be stated between ad-hoc and very strong. According to this strength of linkage, The Chamber has very strong linkage with Ministry of Agriculture of Lower Saxony, Research Institutes of Ministry of Agriculture of Lower Saxony, University of Hanover Foreign Research Institutes, Foreign Universities and Other Chambers of Agriculture in Germany (Schenk, 1999; Rhein,2000;Ozcatalbas,2000).The Chamber has also a moderate-strong linkage with Federal Ministry of Agriculture and Research Institutes of Federal Ministry of Agriculture (Rhein, 2000).

### *3.3. Fee-Paying System for Extension*

The extension staffs are responsible for the extension activities in their area and usually visit farmers once or twice a week with respect to the characteristics of the production season. During these visits, the extension staffs make observations and conducts-interviews with growers. Thus the extension staffs have opportunity to see the problems of farmers and determine solution possibilities at the farm level. The farmers have to pay membership fees (subscription) as annual basis to extension circle. In addition, farmers can ask the subject matter specialists (SMS) of the Chamber to deal with their urgent problems. If the extension worker can solve the problems, he has to be paid based on the time spent on the farm

level. Furthermore, farmers can contact with extension staff by telephone and/or internet or farmers visit extension people in his/her office to receive agricultural information. In these cases again there is no need to pay fee by the farmers to the extension people.

## **4. Training of Trainers and Farmers**

The German training system in agriculture, especially practical training is based on the German dual training system. Training institutions are universities, technical schools, DEULA institutes (Agricultural Teaching Centres), national and regional research institutes, etc.

One of the key factors in implementing extension is regular training which is fundamental to effective extension (Hayward, 1990). The regular training has very special role in the extension. In Hanover region, training of trainers (extension staff) and farmers are implemented by the Chamber. Training seminars oriented to farmers are organised in various topics. These seminars generally last 2 days, but some of them last one day or between 3 and 5 days. Farmers have to be registered to participate these seminars and have to pay seminar's fee. The seminars are generally organised between January and February, because agricultural activities between these dates are relatively low. The topics of seminars are crop selling, promotion, advertising, marketing, the program of Electronic Data Processing (EDV-Electronische Daten Verarbeits) for beginners internet-basic level, how to use (EDV) plant protection, horticultural production techniques, social security and employment, garden-landscape building, holidays information for women, student trips to international green week etc.

## **5. Training of Farmers' Children**

The training of farmers' children (young farmers or future farmers) is carried out by the Horticultural Department at the main office of the Chamber via internet and publications. For this purpose, the Club of

Farmers' children was established which is known as PUK-Club (Pfiffiges und Kunterbuntes rund um Pflanzen). The Club has always contacts with its members. The main communication tools are PUK-Club Magazine and its web page.

This club targets young farmers who are between 5 and 11 years old. Currently, the club has 100.000 members and it organises various activities for the children. The club for example organises courses lasting 2 months for the children of ornamental growers. About 150 growers' children from the total 1108 ornamental farms located in Hanover region were trained in 1990. Training topics are about the environment, agricultural and horticultural productions. The aim of the courses is to: disseminate information to parents through their children trained in the horticultural production and to train candidate growers.

## **6. Conclusion**

In Hannover Region of lower Saxony State, The role of the Chamber of Agriculture is very important for horticultural extension activities. Extension service for horticulture sector is mainly carried out by the Chamber which named "farmer-union based extension systems".

The most important tasks of the Chamber are to organise and implement extension services, to train extension workers, to conduct research, to make contact with relevant institutes: The functions of the Ministry of Agriculture are to support financially to extension services, to conduct research and development, to organize fair and exhibitions, to act together with federal government to implement common agricultural policy, to develop information networks. The degree of relationships between the farmers and the Chamber can be stated between ad-hoc and very strong. This point is very important and it should be continued to increase of the extension efficiency.

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