

Czech electronic remote trading with agricultural products

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Abstract

To sell production is one of the most critical tasks in the farmers year cycle. That is why, services which support agricultural trade can bring a help to farmers, tradepersons and the final consumers. This can also release some national and international wide tensions in trading with agricultural products.

The Netherlands is a country with a long tradition in a stable and well organized agricultural trade. Some ways of trading are verified during centuries, here. But recent developments in computer and communication technology can still offer further improvements, resulting in more advanced methods in submitting or collecting information concerning assortment, prices, counterparts and other important information needed for selling or buying agricultural products. An example of these innovations is an "Tele-auction" system of the Central Bureau for Fruit and Vegetable Auctions in the Netherlands (CBT). This system was described by P.C.M. van der Enden and Th. J. Smeets in December 1994 in *Agro Informatica*, issue Nr5.

At the present time, other systems with a similar purpose were developed and used also in other countries. The aim of this article is to describe briefly such a system recently

introduced in Czech republic. There is still further research conducted to advance the mentioned system. This research was undertaken with support from the European Commission's Phare ACE Programme 1994.

AGROS

This public service is operational in Czech videotex since June 1994. The word Agros is abbreviation of a Czech name for Agricultural Trading System. It was developed by the Department of Informatics, Czech Agricultural University of Prague in cooperation with a commercial enterprise PVT Liberec in spring and summer 1993. The purpose of AGROS was to help Czech farmers to sell their products in a meaningful manner. This will be a solution to the most difficult and critical problem of a farmer's production life-cycle and of an entire agricultural sector.

The following are the main aims of AGROS:

- to provide farmers with information about a **current situation in the market**, e.g. to give them an overview of an assortment of commodities and varieties, their amounts, prices which are offered or demanded in individual territories (districts);
- to enable them to offer, order and also to **sell or buy agricultural products** directly via the system.

The Videotex technology has been selected for AGROS which brings the following **advantages and benefits:**

- users will have a 24 hr's/day, 7 days/week, **non-stop access to its services, country-wide**,
- it will also provide users with an usual printed version of documents,
- it will enable users to agree on individual trades **very quickly** (in few minutes). This is an important factor for trading with some goods, which change quality quickly (e.g. soft fruits, vegetables, etc.),
- **very low initial investments**. The investments reduce just to buying a modem and videotex communication program since a majority of potential users have already their personal computers. A total investments will not exceed some 9000 Czech crowns (about 600 NLG),
- **very low operational costs**,
- **very simple** and user-friendly. No preliminary skills about computers are needed,
- access to other services of videotex.

As a result, AGROS will :

- enable farmers a more **systematic planning** of their production from both respects: assortment and amounts.
- act as an active mechanism for **creation and control of prices**, avoiding loses because of delay, transport costs, etc. It will provide farmers with buyers and provide consumers with suppliers.

Prototype of AGROS has been awarded by principal awards in two events:

- **golden medal 1993** - International Agricultural Fair - Ceské Budejovice;
- **crystal apple 1993** - Farming and Horticulture Fair - Litomerice.

Basic principles

Users of AGROS are registered by a service provider. Users submit him their identification data, like a name, an address, telephone and fax numbers. These are later automatically filled in into their offers, orders, etc., which improves the comfort of the user while using AGROS. In the registration process, users sign a contract with the service provider to obey the rules of the service. There are three main rules, supporting the meaningful use of the system:

- 1 the traditional signature on trading documents (e.g. on an order) is substituted by an electronic equivalent (usercode and password) like in an electronic banking;
- 2 the trade is compulsory for both sides from the moment when the seller confirmed the order;
- 3 the quality of delivered goods should be that declared in the offer, at least.

After signing the contract with the service provider, the usercode, the password and also an electronic mail-box is assigned to the user.

Users join the system countrywide from their personal computer, which is connected via a modem to the telephone network. From this computer they can use all information services of AGROS and perform their trades easily and comfortably, 24 hours/day. Generally, users can work with the system as sellers and/or buyers. They can be of any or of both of these categories, whenever they want. AGROS will enable users to perform all steps towards arranging a trade, like in a traditional way: i.e. to offer goods for sale, to demand for goods, to submit order, to confirm order, etc. Users have a possibility of a **market-like behavior**, i.e. to react quickly to the

development of market conditions. Buyers can change or cancel **their orders** and sellers can change or cancel **their offers** until that moment of the compulsory trade. Each trade arranged via AGROS is **compulsory** for both: seller and buyer, from the moment when the seller eventually confirmed an order of the buyer.

AGROS will guarantee the **individual data security** to the users. Everybody is provided with all information which is needed to arrange any trade, but no data and information concerning a progress and results of individual purchases will be generally available in the system.

Functions

Further we shall show a list of basic options available to the buyer and options available to the seller in AGROS:

Buyer can:

- **browse a database of offers.** Detailed data of individual offers are shown. There is a complete description of the supplier, of goods (commodities, varieties, districts, prices, quality, packing, amounts, transportation conditions, expire dates) and other conditions of a purchase;
- **submit an order** for goods selected from the database of offers. Submitting the order is possible automatically while browsing the offers;
- **change or cancel own orders**, which are not confirmed by supplier, yet. The user can react at the development of a situation in the market;
- **browse confirmed orders** in order to have an overview and details of the compulsory transactions;
- **submit data for demanded goods.** Trading by demands of buyers is a mirror-like service to the trading by offers of sellers.

Seller can:

- **submit the offer.** He should declare all necessary parameters of the offered commodity;

- **change or cancel the offer** which was not spent by confirmed orders, yet;
- **treat orders** in one of the following ways:
 - confirming : the amount in the offer is automatically reduced and a confirmation is sent to the buyer in this case;
 - canceling;
 - advising a change to the order
- **browse the confirmed orders;**
- **browse a database of demands** and react to it in a mirror-like manner with respect to the treatment of offers.

Besides the trading facilities, AGROS enables their users to browse, select and read a brief actual information from the service provider, ministry of agriculture, branch organization, etc.

Technical and Financial Conditions

To access AGROS, an IBM PC compatible computer, communication program, modem and telephone line are needed. Even the users who do not have their own equipment can access AGROS from any suitable computer, since AGROS identifies users by an Usercode and Password instead of the hardware used. This means that post offices, municipal or local offices, branch organizations, neighbours etc. can enable everybody to access and **enjoy services of AGROS.**

Services of AGROS are charged in the same way like telephone calls - about five Czech crowns (0.35 NLG) per minute of access. **No extra payments** e.g. for registration, volumes of trade, etc. are required.

More Information

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