1. BASIC INFORMATION:

1.1. Desiree Number      2002/000-180-01-04
Twinning Number      HU02/IB/AG-04

1.2. Title: Improvement of qualification and certification of seeds, propagating material and feeds

1.3. Sector: Agriculture

1.4. Location: Hungary

2. OBJECTIVES

2.1. Wider objectives

Effective transposition of Acquis in the field of certification and marketing of seeds, propagating materials and feeds.

2.2. Project purpose:

- To develop an EU harmonised qualification system for varieties and certification of seeds, propagating material and feeds.
- To develop an IT system ensuring fast sample movements and data transfer and processing.
- To make the present qualification and certification system fit for meeting EU requirements.
- To train the NIAQC staff.

2.3. Accession Partnership and NPAA Priority:

Accession Partnership

The recently revised Accession partnership includes the following priority under Agriculture:

Complete transposition of legislation in the veterinary and phytosanitary field (legislation on transmissible spongiform encephalopathies, plant passports, maximum residue levels, animal nutrition) and ensure implementation and enforcement.
NPAA
In the NPAA the project priorities and actions are dealt with in Chapter XXXV as “Quality control of seeds and propagating materials” and Chapter XXXI as “Authorisation of feedstuff, checking of quality”.

2.4. Contribution to National Development Plan: Not applicable.

2.5. Cross Border Impact: Not applicable.

3. DESCRIPTION

3.1. Background and justification

Adaptation of the necessary legislation for EU conformity partly took place in 1996 in Law No CXXXI of 1996 on „State registration of plant varieties, production and marketing of seeds and propagating materials” and its additional regulations. Last period of our legislative harmonisation will have to be completed till 30 June 2002 according to the current NPAA taking into consideration the new regulations and the statements of the TAIEX report of 2000. The project shall support the adjustments still needed in three sectors during this pre-accession period:

The variety testing sector
Hungary has to introduce the variety testing method accepted in the Member States in order to enter the varieties from the Hungarian National List into the EU Common Catalogue. Council Directive 70/457/EEC of 29 September 1970 on the common catalogue of varieties of agricultural plant species says:

Article 3 (1) Each Member State shall establish one or more catalogues of the varieties officially accepted for certification and marketing in its territory. Any person may consult the catalogues.

Article 4 (1) The Member States shall ensure that a variety is accepted only if it is distinct, stable and sufficiently uniform. The variety must be of satisfactory value for cultivation and use.

Article 4 (2) The value of a variety for cultivation or use shall be regarded as satisfactory if, compared to other varieties accepted in the catalogue of the Member State in question, its qualities, taken as a whole, offer, at least as far as production in any given region is concerned, a clear improvement either for cultivation or as regards the uses which can be made of the crops or the products derived there from. Where other, superior characteristics are present, individual inferior characteristics may be disregarded.

Article 7 The Member States shall provide that the acceptance of varieties be based on the results of official examinations, particularly growing trials, covering a sufficient number of characteristics for the variety to be described. The methods used for determining characters must be exact and reliable.

And if the country met the above criteria will have the right to contribute to the common catalogues of varieties of agricultural plant species.

Article 1 (2) The common catalogue of varieties shall be compiled on the basis of the national catalogues of Member States.
In the frame of our “National Listing activity” the conditions of the tests have to be improved. For the time being the plant varieties registered in Hungary are not accepted for the variety lists in the Member States. The reason is that the technology and equipment used in Hungary for the variety tests are not acceptable for the Member States. Hungary therefore has to upgrade its small plot machinery and IT equipment used to the variety tests.

At the same time the phytosanitary testing of varieties have to be improved.

**The seed production and propagating material sector**

In Hungary, before 1996 seed production was mostly in the hand of the large state farms ensuring safe document management and safety of certification. As a result of the transition started in 1996 the seed production is now in the hands of private commercial producers. NIAQC therefore has to reorganise its document handling and information management system to ensure safety and reliability of the issued certificates.

One of the new challenges of the seed sector is the appearance of GMO technology in the seed varieties. Because this moment GMO seeds must not be introduced in the Hungarian market, NIAQC has to screen the varieties for this trait. Since the NIAQC does not have the sophisticated equipment necessary for these tests, improvement is inevitable.

Accession will also result in flooding of seed varieties to Hungary. NIAQC on the other side will be responsible for conducting authenticity tests if the origin of the seeds will be put in question. For these tests NIAQC needs develop the pre and post control system and will be obliged to store original samples of seed varieties for years. This will require an enlarged cooling and storing capacity. The irrigation of the pre-and post control tests is also necessary to avoid the drying out of the plants tested.

**The animal feedstuff sector**

The Act XCII. of 1995 (Hungarian Feed Law) on product and putting into circulation of animal feedstuff established the system of qualification and inspection of feedstuff. To fit the EU requirements, the modification of the Law and the edition of the new Hungarian Feed Codex by Ministerial Decree, are in progress.

On the basis of the authorisation and regulation of the Hungarian Feed Law, the Central Laboratory of NIAQC is the reference laboratory in the field of feed analysis in Hungary. Fitting the criteria of the Council Decision (1999/850/EC) of Accession Partnership with the Republic of Hungary, on the field of the qualification and inspection of feedstuff and adaptation of analytical methods described in EU Directives can be slowly and hardly executed because of technical background and the irregular conditions from environmental specifications.
Challenges in the feed testing sector force the purchasing of equipment which are necessary to take over the analytical methods accepted by the EU laws and directives i.e. the increasing of the measuring capacity, sensitivity and selectivity of the existing and operating equipment with the aim of wider ranging control the presence of non desired and prohibited materials (like dioxin) and their residues in the whole range of basic materials and final products, the mutual acceptance of test results and for production of comparison samples, reference materials (RMs) and certified reference materials (CRMs).

3.2. Linked activities:

HU9806-04-01

Seed testing: The previous HU9806-04-01 project was requested to start the ISTA (International Seed Testing Association) accreditation by the standard series of EN-45 000 and ISO 9000. Seed testing equipment in that project were for purity testing and moisture content testing (scales, ovens, seed counters, and seed divider). The present project will develop other seed testing activities: genetic purity testing, - GMO post control test, technical and computer background and logistics.

Feed testing: Within the framework of the project for the analysis of feedstuff an ICP equipment was procured.

3.3. Results:

- The variety testing method accepted in the Member States will be introduced in Hungary. For the sake of the free movement of goods equivalence the EU and Hungarian National Lists of Plant Varieties will be realised.
- The varieties from the National Lists of Plant Varieties not yet listed on the European Common Catalogue may enter in to the EU Common Catalogue for Agricultural Crops and Vegetables.
- The direct IT links between the seed processors and the certification system, the regular data records, the link to the phytosanitary records will be realised.
- The laboratories will meet the requirements of the new ISO 17025 standard on laboratory accreditation.
- The laboratory will be able to co-operate in international and EU methodology development programmes (EU-OECD-ISTA – EC-ONU experiment on GMO contamination of non-GMO varieties in 2001).
- Feed test performed by NIAQC will be accepted in the Member States
- The inspection of the presence of the non desired and prohibited components in basic feed materials and products will be realised.
- The inspection of laboratories will be more precise by using reference materials (RM) and certified reference materials (CRM).
- Through the training courses organised by EU experts the trained staff will attain the EU techniques and methodology in laboratory practice, IT and field tests.
3.4. Activities:

3.4.1. Twinning

A twelve months twinning arrangement is planned to transfer knowledge in

- elaborating details of the levels of the tests of the various species (DUS (Distinctness, Uniformity, Stability) and VCU (Value for Cultivation and Use), DUS alone, rules of tests for ornamental crops, number of testing locations, experimental machinery and equipment, testing quality traits, VCU tests for National List, modernisation of data exchange)
- setting up rules of inspection of certification and field inspection, carried out by the seed processors (qualification of the processors, establishment of unified computer links between seed processors and the centralised inspection service, modernisation of the pre-, and post control tests)
- improving the tests for non desired and prohibited materials in feedstuffs (forming adequate method and equipment background to determine these materials on the required low level for sake of the mutual acceptance of the test results)

Specific tasks:

- Supplying information on EU legislation concerning qualification system for varieties, seed certification and feedstuff testing
- Organising training courses in EU technique and methodology, IT and field tests
- Cross-checking of the technical specifications of the equipment to be procured

Profile of the PAA:

- Experience in pre-accession harmonisation in the field of seeds, feeds and qualification of varieties
- Knowledge of European legislation and EU directives in the field of seeds, feeds and qualification of varieties
- Expertise in variety trial methodology
- Appropriate language skills (English)

Profile of the short-term experts:

- Expertise in detailed methodology of seed certification regarding, pre and post control tests: to form an information system (database) on the basis of the test results obtained from analysis of non desired and prohibited materials
- Expertise in special respect of up to date instruments and procedures
- Expertise in IT technology
- Expertise in training
For this activity a 0.6 million EUR budget is allocated to cover expenditures of the PAA and other experts.

**Guaranteed results**

- *Practical applications* (analytical and information system) of EU legislation and recommendations connected with non desired and prohibited materials in feedstuffs will be known and adopted.

### 3.4.2. Supplies

Within the framework of the project, one equipment supply tender will be launched in a value of 2,4 million Euro in joint co-financing with the national budget. 26.7% of the funds will be provided by the budget of MARD. The development of the GMO and feed laboratory equipment is in accordance with the new technical requirements and methodology, their sensitivity permit a better control in food and feed safety. The small plot machinery is necessary for DUS and VCU tests in accordance with EU practice. The software and hardware development is necessary for improving the information transmission between the seed producers, processors and certification bodies, the plant health institutes and NIAQC. In the process of variety qualification, based on the DUS tests and UPOV Convention, the IT purchasing is necessary to be able to link with the Community Plant Variety Office and other institutes database.

The international trade of goods and the links of the institute require this development. The requested equipment list with the technical description can be found in Annex 7.

### 3.5 Lessons learned

Under the Annual Assessment Report R/HU/AGR/00043 recommendations were made which are relevant to the current project. Design recommendations concerning indicators of achievement (point 2.3 of the Report), twinning activities (last bullet point of 4.2.3 on p.21), other recommendations under point 6.2 of the Report and in particular various recommendations of the Report concerning laboratory equipment purchase activities (e.g. point 2.7, bullet points 11-13 of point 4.2.3, etc.) have been addressed while drafting the current project fiche. The Implementing Agency and the Project beneficiaries will ensure that management recommendations will be addressed as appropriate.

### 4. INSTITUTIONAL FRAMEWORK:

All technical and administrative aspects of the project shall be the responsibility of the Agricultural Phare Office in the Ministry of Agriculture and Regional Development (MARD). The National Institute for Agricultural Quality Control (NIAQC, H-1024 Budapest Keleti K. St. 24) shall manage the professional implementation. Additional participating institution is the Agricultural Department in the
MARD. The Central Finance and Contracting Unit (CFCU) will take the responsibility for contracting and payment.

The project is in line with the Institution Building Plan of the Ministry of Agriculture and Regional Development.

5. DETAILED BUDGET (MEUR):

<table>
<thead>
<tr>
<th>Component</th>
<th>Phare  Support</th>
<th>Investment</th>
<th>Institution</th>
<th>Total Phare ( = I+IB )</th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twinning</td>
<td>0.5</td>
<td>1.7</td>
<td>0.5</td>
<td>2.2</td>
<td>0.8</td>
<td>0.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Equipment supply</td>
<td>-</td>
<td>-</td>
<td>1.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1.7</td>
<td>0.5</td>
<td>2.2</td>
<td>0.8</td>
<td>-</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

The Government co-financing for the twinning activity is an estimated indicative amount and will not be part of the budget of the Twinning Covenant. It provides an indication of the resources in cash or in kind that the beneficiaries will have to mobilise to cover the necessary counterpart expenses arising from the implementation of the twinning.

The equipment supply will be co-financed between Phare and Government resources in joint financed tender. The Phare amount is binding as a maximum amount available for the items. The ratio between Phare and the national amount is also binding and has to be applied to the final contract price.

6. IMPLEMENTATION ARRANGEMENT

6.1. Implementing agency

The Implementing Agency of the project is the Central Finance and Contracting Unit (CFCU). The CFCU will be the Contracting Authority and in that capacity will issue and evaluate tenders, conclude contracts and authorise the Treasury to make contract related payments. The Director of the CFCU will act as Programme Authorising Officer (PAO). Her contacts are:

PAO: Ms. Judit Rózsa, Director of CFCU, Public Finance Office
Address: Deák Ferenc u. 5. Telephone: (+361) 327-3652
H-1052 Budapest Fax: (+361) 327-3572
e-mail: judit.rozsa@ahh.gov.hu
The MARD will be responsible for the technical part of the project in terms of design, evaluation, follow up and monitoring. The Head of Directorate for Integration (MARD) will act as Senior Programme Officer (SPO). His contacts are:

**SPO:** Mr. László Vajda, Head of Directorate  
Ministry of Agriculture and Regional Development  
Address: Kossuth tér 9-11.  
H-1055 Budapest  
Telephone: (+361) 331-3578  
Fax: (+361) 301-4663  
e-mail: laszlo.vajda@fvm.hu

6.2 Twinning

The beneficiary institutions of the twinning project will be the MARD and the NIAQC. The CFCU will be the contracting authority with responsibility for the financial management of the twinning component.

6.3 Non-standard aspects

The Practical Guide for Phare, ISPA and SAPARD contract procedures and Twinning Manual will strictly be followed.

6.4 Contracts

The project will be implemented through one twinning arrangement of 0.5 M€ and one jointly co-financed supply contract of 2.4 M€.
7. IMPLEMENTATION SCHEDULE

<table>
<thead>
<tr>
<th>Contract</th>
<th>Start of tendering</th>
<th>Start of project</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twinning</td>
<td>12.2001</td>
<td>06.2002</td>
<td>05.2003</td>
</tr>
<tr>
<td>Supply</td>
<td>06.2002</td>
<td>12.2002</td>
<td>05.2003</td>
</tr>
</tbody>
</table>

8. EQUAL OPPORTUNITY

No distinction between man and woman will be made

9. ENVIRONMENT

The realisation of the project does not mean any risk on the environment

10. RATES OF RETURN

Not applicable

11. INVESTMENT CRITERIA

Not applicable

12. Conditionality and sequencing

None
ANNEXES TO PROJECT FICHE

1. LogFrame Planning Matrix
2. Detailed implementation chart
3. Contracting and disbursement schedule
4. Reference to feasibility and pre-feasibility studies
5. List of relevant Laws and Regulations
6. List of equipment to be procured and technical specifications
7. List of accession related documents
## LOGFRAME PLANNING MATRIX FOR
**Improvement of qualification and certification of seeds, propagating material and feeds**

<table>
<thead>
<tr>
<th>Programme number</th>
<th>2002/000-180-01-04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting period expires</td>
<td>30.11.2004</td>
</tr>
<tr>
<td>Disbursement period expires</td>
<td>30.11.2005</td>
</tr>
<tr>
<td>Total budget: 3.0 million EUR</td>
<td>Phare budget: 2.2 million EUR</td>
</tr>
</tbody>
</table>

### Overall objectives
- Effective transposition of the Acquis in the field of certification and marketing of feeds, seeds and propagating material.

### Objectively verifiable indicators

### Sources of verification
- Accreditation documents

### Project purpose
- To apply in Hungary the EU harmonised qualification system for varieties and certification of seeds, propagating material and feeds.
- To develop an IT system ensuring fast sample movements in data transfer and processing.
- To harmonise the present qualification and certification

### Objectively verifiable indicators
- The variety protection to EU average percentage by June 2003.
- 70-80 Hungarian varieties/year will be introduced to the EU Common Catalogue from June 2004.
- Certification of seeds to EU standards by June 2003.

### Sources of verification
- Annual report of ISTA OECD and UPOV
- Commission Issues of Common Catalogue
- EU project audit
- Ministry report
- NIAQC annual

### Assumptions
- The requirements and the level of technical background will be achieved.
- Staff and co-finance available when required.
<p>| System with EU requirements. | 100% of the feed test results are accepted on EU standards by June 2003. | Report |</p>
<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively verifiable indicators</th>
<th>Sources of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The variety testing method accepted in the Member States will be</td>
<td>Variety qualification period will be reduced to 2 years. The VCU trials for vegetable and fruit</td>
<td>Report of the Variety Qualification Committee of</td>
<td>Project activities can start</td>
</tr>
<tr>
<td>introduced in Hungary. For the sake of the free movement of goods</td>
<td>varieties to achieve the National List will be quit by June 2003.</td>
<td>MARD</td>
<td>Measurements taken by the Government to enforce and monitor the keeping of</td>
</tr>
<tr>
<td>equivalence the EU and Hungarian National Lists of plant varieties will</td>
<td></td>
<td>Annual report of NIAQC</td>
<td>legal regulations</td>
</tr>
<tr>
<td>be realised. The varieties from the National Lists of Plant Varieties</td>
<td></td>
<td>Supervisory reports of MARD</td>
<td>Funds for operation and maintenance available when required</td>
</tr>
<tr>
<td>can enter in to the EU Common Catalogue for Agricultural Crops and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables. The direct IT links between the seed processors and the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>certification system, the regular data records, the link to the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phytosanitary records will be realised. The laboratories will meet the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements of the new ISO 17025 standard on laboratory accreditation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The laboratory will be able to co-operate in international and EU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>methodology development programmes (EU-OECD-ISTA EC-ONU experiment on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GMO contamination of non-GMO varieties in 2001).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Hungarian varieties reach the EU Common Catalogue. The EU varieties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>can be produced in Hungary without any restriction (more thousand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>varieties). 50 % less complaint in quality of seed and propagating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>material, all by June 2003.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The seed certification and control by the processor in the next five</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>years will grow to 3 to 4 times. Test results EU standards. The trade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of non GMO material are assured by June 2003.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td>Objectively verifiable indicators</td>
<td>Sources of verification</td>
<td>Assumptions</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------</td>
<td>------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Feed test performed by NIAQC will be accepted in the Member States. The inspection of the presence of the non desired and prohibited components in basic feed materials and products will be realised. The inspection of laboratories will be more precise by using reference materials (RM) and certified reference materials (CRM). Through the training courses organised by EU experts the trained staff will attain the EU techniques and methodology in laboratory practice, IT and field tests.</td>
<td>· Test results to EU standards and the introduction of the EN ISO 17025:2000 norm. will be reached. · The critical control points are reduced. The range of detectable and non-detectable elements increases with 25%. · The reference materials supplied and updated. All by June 2003</td>
<td>Project reports</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff training</td>
<td>One twinning arrangement</td>
<td>· All participating organisations provide adequate facilities staff. · Suitable twinning partners (PAAs) can be found</td>
</tr>
<tr>
<td>Equipment supply</td>
<td>One supply contract</td>
<td></td>
</tr>
</tbody>
</table>

**Preconditions:**
- Availability of local co-financing funds
- High quality project management
<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively verifiable indicators</th>
<th>Sources of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Correction of Act CXXXI. of 1996 on variety registration and production as well as marketing of seeds and vegetative propagating material.</td>
</tr>
</tbody>
</table>
ANNEX 2

Detailed Implementation Chart

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Twinning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Gray: Tendering and Contracting
- Black: Implementation
ANNEX 3

Title: Improvement of qualification and certification of seeds, propagating material and feeds

Project Number: 2002/000-180-01-04

CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE FOR PHARE FUNDS
(MEUR)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contracting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>-</td>
<td>-</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Twinning</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Total (cumulative)</td>
<td>0.5</td>
<td>0.5</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Disbursement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td></td>
<td></td>
<td>1.02</td>
<td>1.53</td>
<td>1.7</td>
</tr>
<tr>
<td>Twinning</td>
<td>0.25</td>
<td>0.33</td>
<td>0.41</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Total (cumulative)</td>
<td>0.25</td>
<td>0.33</td>
<td>1.43</td>
<td>2.03</td>
<td>2.2</td>
</tr>
</tbody>
</table>


ANNEX 4

Title: Improvement of qualification and certification of seeds, propagating material and feeds

Project Number: 2002/000-180-01-04

Reference to feasibility/pre-feasibility studies
All the developments are based on the present working system and the highly professional work of the accredited laboratories. The time period remaining till the full accession makes it important to eliminate the still existing differences in a short time and the EU conform work of the whole certification system.

Parts of TA and Info. Supply as building in EU minimum requirements in the field of label printing and plant health, providing dates for plant health service –have to be introduced till May 30 2002.

Connecting to the above there are development demand also, which will make it possible to control the whole activity of the seed industry and the preparation of introducing Directives 98/1996 EC, 98/56 EC and 98/320 EC. This way unofficial (accredited and supervised) field inspection and sampling can be implemented monitored by an independent supervision. Deadline: December 31 2002.

Laboratory development –field of genetic purity testing emphasised. GMO testing is connected also with human food safety regulations. In case of realisation the system will provide highly accurate results.

The above development will be supported by the planned logistic developments. The work will become quick and accurate.

(Full implementation of the project till December 31 2002 within the Plant Health/ Quality of Seeds and Plants will result in high level fulfilment of the EU requirements. Seed as good will be able to move freely between Hungary and the EU which is a basic condition to create a uniform market since Hungary is the biggest seed exporter of EU after the USA and Canada).

Institute of Government and Jurisprudence:
Integration of decentralised organisations of agrarian sector especially considered the tasks performed by the National Institute for Agricultural Quality Control (1996).

Consulting Ltd.:
Results of revision of the National Institute for Agricultural Quality Control (April 1998).

Annual development reports of the Head Departments of the National Institute for Agricultural Quality Control.

**ANNEX 5**

**Title:** Improvement of qualification and certification of seeds, propagating material and feeds

**Project Number:** 2002/000-180-04-01

**List of relevant Laws and Regulations**
<table>
<thead>
<tr>
<th>National Reference</th>
<th>EU Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>marketing of seeds and propagating materials</td>
<td>seed), 66/403/EEC (potato)</td>
</tr>
<tr>
<td>and Marketing of Seeds.</td>
<td>(examining agricultural varieties)</td>
</tr>
<tr>
<td>- MSZ 6353 Requirements for field inspection of seed propagation</td>
<td>- 75/502/EEC (meadow grass)</td>
</tr>
<tr>
<td>- MSZ 7145 Seeds of agricultural and horticultural plant species</td>
<td>- 80/755/EEC (packages of cereal seed)</td>
</tr>
<tr>
<td>- MSZ 20476 Small plot test for cultivar's identification</td>
<td>- 81/675/EEC (amendment)</td>
</tr>
<tr>
<td></td>
<td>- 86/109/EEC (fodder plants and oil and fibre plants)</td>
</tr>
<tr>
<td></td>
<td>- 87/309/EEC (packages of seed of certain fodder plant species)</td>
</tr>
<tr>
<td></td>
<td>- 89/7/EEC (validity of official acceptance for vegetable species)</td>
</tr>
<tr>
<td></td>
<td>- 93/17/EEC (basic seed potatoes)</td>
</tr>
<tr>
<td></td>
<td>- 69/208/EEC (oil and fibre plants)</td>
</tr>
<tr>
<td></td>
<td>temporary experiment on seed sampling and seed testing</td>
</tr>
<tr>
<td>- Decree No. 91/1997. (XI. 28.) of the Ministry of Agriculture on the certification</td>
<td>- 66/404/EEC (forest reproductive material)</td>
</tr>
<tr>
<td>and marketing of forest reproductive materials</td>
<td>- 71/161/EEC (quality standards for forest reproductive material)</td>
</tr>
<tr>
<td>genetic materials</td>
<td>- 72/180/EEC (examining agricultural varieties)</td>
</tr>
<tr>
<td>- Decree No. 88/1997. (XI. 28.) of Ministry of Agriculture on cataloguing of plant</td>
<td>- 89/7/EEC (validity of official acceptance)</td>
</tr>
<tr>
<td>varieties</td>
<td>- 1238/95/EC, 1239/95/EC, 2100/94/EC (Community Plant Variety Office)</td>
</tr>
<tr>
<td>- Decree No. 45/1998. (VI. 16.) of the Ministry of Agriculture (amendment)</td>
<td></td>
</tr>
<tr>
<td>- Act XXXIII. of 1997 on Patent Protection Invention</td>
<td></td>
</tr>
<tr>
<td>- Act XCII. of 1995. on product and putting into circulation of animal feedstuffs</td>
<td>- 1999/29 EC; 85/382; 91/516; 92/508; 96/22; 97/582; 93/28/EEC, 72/199/EEC, 98/64/EC,</td>
</tr>
<tr>
<td></td>
<td>- 1999/27/EEC, 93/70/EEC, 1999/76/EC,</td>
</tr>
<tr>
<td></td>
<td>Decree No. 25/1996 (IX.4.) of the Ministry of Agriculture on product and</td>
</tr>
<tr>
<td></td>
<td>putting into circulation</td>
</tr>
<tr>
<td></td>
<td>- 1999/79/EC, 73/46/EEC, 78/633/EEC,</td>
</tr>
<tr>
<td></td>
<td>- 1999/27/EEC, 93/70/EEC, 1999/76/EC,</td>
</tr>
</tbody>
</table>
## ANNEX 6

**Title:** Improvement of qualification and certification of seeds, propagating material and feeds

**Project Number:** 2002/000-180-04-01

### Indicative equipment list

**Equipment for seed (GMO, pre and post control test)**

<table>
<thead>
<tr>
<th>Pieces</th>
<th>Item</th>
<th>Technical specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric seed breaking machine</td>
<td>Breaking cereals and maize&lt;br&gt;Working speed: min 100 pcs/minutes&lt;br&gt;Size of broken pieces 0.05 mm</td>
</tr>
<tr>
<td>2</td>
<td>Electric shaking machine</td>
<td>Shaking frequency: 30-420/min&lt;br&gt;Max. deflection: 8 mm&lt;br&gt;Max laden: 2 kg continual timing&lt;br&gt;Size of shaking table: 300/500 – 300/500 mm&lt;br&gt;Weight: cca 10-15 kg</td>
</tr>
<tr>
<td>2</td>
<td>Cryostat</td>
<td>Temperature: -30 – 150°C ± 0.01&lt;br&gt;Cooling capacity: min. 45 W&lt;br&gt;Pressure pump capacity: min. 20 litres/m/340 mbar</td>
</tr>
<tr>
<td>1</td>
<td>Electric grinder</td>
<td>Homogenising unit: motor rotation per minute: 2000&lt;br&gt;Autoclaving rust-free steel tank: volume 25 ml</td>
</tr>
<tr>
<td>3</td>
<td>Thermal cycle</td>
<td>Sample capacity: 1 x 96 and 1 x 60 sample block&lt;br&gt;Working temperature: 5-32°C&lt;br&gt;Assessing software included</td>
</tr>
<tr>
<td>1</td>
<td>Electrophoresis running chamber</td>
<td>Volume: 50 ml</td>
</tr>
<tr>
<td>1</td>
<td>Test tube-shaker</td>
<td>Rubber lid to Eppendorf tube&lt;br&gt;Weight: cca 2 kg&lt;br&gt;Adjustable speed: 0-40 Hz&lt;br&gt;Sliding speedometer scale</td>
</tr>
<tr>
<td>1</td>
<td>Ultrasonic bath</td>
<td>Volume: min 2.5 l&lt;br&gt;Capacity: min 85 W</td>
</tr>
<tr>
<td>1</td>
<td>Gel documentation system</td>
<td>Sensitivity 0.1 mg of ethidium bromide stained DNA or 400 micro-lux, illumination 302 nm trans – UV</td>
</tr>
<tr>
<td>2</td>
<td>Laboratory tare scale</td>
<td>Readability: 0.1 g&lt;br&gt;Max. laden: 4000 g</td>
</tr>
</tbody>
</table>
Average working time: 1 sec
Reproducibility: ± 0.1 g

2 Laboratory scale

Readability: 0.01 g
Max. laden: 2000 g
Average working time: 1 sec
Reproducibility: ± 0.01 g

2 Laboratory analytical scale

Readability: 0.00001 g
Max. laden: 400 g
Average working time: 1 sec
Reproducibility: ± 0.00001 g

All the scales have to be certifiable, automatically inner calibration, digital indicator, overload protection and connectable to computers.

3 Electric seed counter

Simple handling, fast and accurate work
Adjustable end-counting into several containers parallel
Adjustable seed size: 1-15 mm
Sample size about 500-1000 g

3 Electric seed divider

Rotary type, easy to clean
Number of divided parts: 3-8
Accuracy: 0.1%
Vibrating feeder, soft work
Sample size: 3-100 g

3 Pollution sucking unit

Able to suck away flying dust over the table (1.5 x 1.5 m)
Adjustable height, changeable filter
Fit to install into present tables

Every piece of electric equipment works: 220 V.

Climatisation of present storage facilities:

3 rooms: Temperature: 2-15 °C, Humidity: 60%
Size of rooms: 150, 80 and 50 air m³.

1 Store for the samples of pre-and post control tests
Size: 200 m² basic area, 600 air m³,
Controlled temperature 2-15 °C, humidity: 60 %

1 System of irrigation for pre-and post control tests
area: 80 ha, storage lake: 1000 m³, 2 pieces sunk wells,
2 pieces irrigation plants with sprinkles,
The animal feedstuff sector

Laboratory instruments and equipment

1 HPLC-MS system (additionally MS and PDA detector)

Solvent system: quaterner gradient, low pressure mixing; flow rate 0,01- 10,00 ml/min;
four channel in-line degasser; plunger seal washer; variable volume injection
(1- 100 µl); auto sampler with cooled sample storing place; thermostated
column oven (from room temp. to 60 °C)
PDA detector: wavelength range: 190- 800 nm; spectral resolution: 1,2 nm/photodiode;
wavelength accuracy: ± 1 nm; PDA library searching, library matching facility
MS detector: quadruple, bench top mass spectrometric detector; mass range: 100- 4000 Da
(amu); positive/ negative ion switching within a run; ES and APCI interfaces;
mass library searching, library matching facility; scan mode, single ion
monitoring
Instrument control and data processing: validated controlling and processing software;
computer workstation with registered operating system, CD data storing
possibilities, printer

1 Nitrogen generator for 2 pcs MS detector

high output nitrogen generator for simultaneously supply of 2- 4 LC/MS;
nitrogen purity: ~ 99 %; operating pressure: 5- 10 bar

1 Atomic absorption Spectrophotometer (flame, ETA, hydride)

Narrow beam optics; wavelength range:185-900 nm; monochromator with computer
controlled wavelength selection; automatic slit selection; min. 4 lamp holder; holographic
diffraction grating min 1200 lines/mm; high sensitivity photo multiplier; deuterium background
corrector; automatic gas control; organic solvent compatible flame atomisation system;
adjustable nebulizer; burner for acetylene/air and nitrous-oxide/acetylene; interface; control
and data processing software; QC protocol; flame and graphite auto sampler; vapour
generator

1 Spectrophotometer UV-VIS

PC control; double beam; holographic grating (~ 1000 lines/mm; pre-monochromator;
wavelength: 190-1100 nm; pre-aliened deuterium and tungsten-halogen lamps; variable band
pass; photometric accuracy: ±0,003A; photometric repeatability: ±0,001A at 1A; RS232
interface

1 Autoclave
Capacity: 100-150 l; temperature: 105-138°C (adjustable); Pressure: max. 2.5 bar, safety catch and valve; inside stainless steel

1. **Sieve shaker with sieve set**

   controlled and adjustable amplitude of oscillation, time and interval of sieving, capacity: 8 sieves, 1-3 kg material; Sieves: stainless steel, size of holes 0.020-4.00 mm

1. **Centrifuge (equipped with different type rotors)**

   revolution per minute ca. 6000 rpm; two type rotors 6x50ml and 6x100 ml; adjustable time and revolution per minute, microprocessor controlled

1. **Stereomicroscope (3 tubes) equipped with photo apparatus**

   Enlargement: 10x-100x

1. **Grinder (coolable)**

   suitable for grinding of high wet, oil and fat containing materials; coolable for grinding of heat-sensitive materials, input particle size: 10-40 mm, output particle size: < 0.3 mm; number of revolution: 5-10000 rpm

1. **Pilot-plant mixer**

   Capacity: 5-50 kg; cylindrical, stainless steel

1. **Microbiological sterile box**

   Middle size, safety filtration

**Environment protection equipment and machines**

1. **System for filtration of the air emitted from laboratory**

   20 place in laboratory, dust and dangerous gas filtration, capacity: ~1000 m³/h/place

1. **Waste water purification system**

   mechanic and chemical purification; 10 m³/day

1. **Solvent regeneration equipment**

   self regulating distillation; capacity: 1-15 l solvents/day
Hardware and software development

All server hardware components must be originated from the same vendor (DLT drive, memory, HDD, monitor, etc...). The offered desktop PCs, notebooks and all servers must be originated from the same vendor!

<table>
<thead>
<tr>
<th>Pieces</th>
<th>Item</th>
<th>Technical specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Central database server hardware</td>
<td>Min. 1 Hz clock speed processor, 256 MB memory, 18 GB net capacity RAID 5 disk array, 10/100 Bit TP Ethernet card, CD drive, DLT archive, Hungarian keyboard, mouse, 15” colour monitor</td>
</tr>
<tr>
<td>1</td>
<td>Central database server software</td>
<td>Operating system and database server for 70 database users and 5 network users. Operating system and database software must fully and specifically comply with existing servers running Oracle 8 and Windows 2000. 10 database user licences with multi-server option to access both database servers.</td>
</tr>
<tr>
<td>1</td>
<td>Central backup database server hardware</td>
<td>Min. 850 MHz clock speed processor, 256 MB memory, 18 GB capacity disk, 10/100 Mbit TP Ethernet card, CD drive, DLT archive, Hungarian keyboard, mouse, 15” colour monitor</td>
</tr>
<tr>
<td>1</td>
<td>Central backup database server software</td>
<td>Operating system for 5 network users. Operating system must fully and specifically comply with existing servers running Windows 2000. Note that it is going to be an offline backup server.</td>
</tr>
<tr>
<td>1</td>
<td>Application server hardware</td>
<td>Min. 1 GHz clock speed processor, 256 MB memory, 9 GB disk, 10/100 Mbit TP Ethernet card, CD drive, Hungarian keyboard, mouse, 15” colour monitor</td>
</tr>
<tr>
<td>1</td>
<td>Application server software</td>
<td>Operating system for 5 network users. Operating system must fully and specifically comply with existing servers running Windows 2000.</td>
</tr>
<tr>
<td>1</td>
<td>Web server hardware</td>
<td>Min. 1 GHz clock speed processor, 128 MB memory, 9 GB disk, 10/100 Mbit TP Ethernet card CD drive, Hungarian keyboard, mouse, 15” colour monitor</td>
</tr>
<tr>
<td>1</td>
<td>Web server software</td>
<td>Operating system for 5 network users. Operating system must fully and specifically comply with existing servers running Windows 2000.</td>
</tr>
<tr>
<td>22</td>
<td>Notebook computers</td>
<td>Min. 650 MHz clock speed processor, 5 GB disk, 64 MB RAM, colour LCD screen, Hungarian keyboard, external mouse, docking station, 15” colour monitor to use with the docking station</td>
</tr>
<tr>
<td>22</td>
<td>Notebook computers software</td>
<td>Operating system which is fully and specifically comply with existing desktop computers Windows 98 operating system</td>
</tr>
<tr>
<td>10</td>
<td>Laser printer</td>
<td>Volume and printing speed min 25 pages/min, 16 MB DRAM memory, definition 600 x 600 and 1200 x 1200 dpi, paper size A3-A5, paper feeding from 2 automatic trays + manual paper feeding, noise max 70 dBA, energy saving work, automatic switch off after 30 minutes break. Tabletop size.</td>
</tr>
<tr>
<td>20</td>
<td>Laser printer</td>
<td>Capacity 8 MB DRAM, printing speed 15 pages/min, definition 600 x 600 and 1200 x 1200 dpi, paper size A3-A5, paper feeding from 2 automatic trays + manual paper feeding, noise max 70 dBA, energy saving work, automatic switch off after 30 minutes break. Tabletop size.</td>
</tr>
<tr>
<td>20</td>
<td>EU label laser printer</td>
<td>2 x 9 pin printing head, min 1000 characters/min printing speed, front and end pushing tractor, perforation cutting, matrix printer. Width of paper: 100-410 mm, noise max 65 dBA, fonts: Draft, Times New</td>
</tr>
</tbody>
</table>
# Information system for the animal feedstuff sector

Hardware: server + 10 workstation, laser printers
Software: operating and network, laboratory management, user software (i.e. data processing, Word, graphics etc.)

## Logistic development

<table>
<thead>
<tr>
<th>Pieces</th>
<th>Item</th>
<th>Technical specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Sample transporting lorry</td>
<td>Engine: 1600 cm³ (petrol) or 1900 cm³ (diesel)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity: 85 LE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualified for 2 persons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plateau load: 800 kg –open or covered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80-100 HP diesel, 4 WD, useful weight 1 t</td>
</tr>
<tr>
<td>5</td>
<td>Copy machine</td>
<td>Tabletop size, paper size A6-A3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity: 18-22 copies/min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Copy rate: 50-200% -adjustable</td>
</tr>
<tr>
<td>13</td>
<td>Geographical determinator (PGS)</td>
<td>Read Hungarian military maps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Memory: 1000 road points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receiver: min 12 channel unit, PC connection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable error: 5-6 m (distance measurement),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>area measurement: 10-100 ha 3%, above 100 ha 0,1%</td>
</tr>
</tbody>
</table>

## Training equipment

<table>
<thead>
<tr>
<th>Pieces</th>
<th>Item</th>
<th>Technical specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Projector</td>
<td>Able to enlarge and show poppy and maize seeds to screen size</td>
</tr>
<tr>
<td>2</td>
<td>Video camera</td>
<td>For daylight working with digital screen</td>
</tr>
<tr>
<td>2</td>
<td>Camera</td>
<td>Digital, to computers</td>
</tr>
<tr>
<td>10</td>
<td>Camera</td>
<td>Traditional, printing date</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lens 28-110 mm</td>
</tr>
</tbody>
</table>

## Variety trials test equipment

<table>
<thead>
<tr>
<th>Pieces</th>
<th>Item</th>
<th>Technical specification</th>
</tr>
</thead>
</table>
| 1      | Small plot drill: self mowing| 4 rows adapter for maize and sunflower mounted on tool carrier,
fully automatic sowing, electronic monitoring system, magazine system, precision planter,
12 rows adapter for cereals (10.5 – 12 row distance)
easy to serve and clean

2 Small plot harvester for cereals: self mowing
cutting table size 1.4 – 2.1 m wide, easy to clean, equipped with scale,

2 Small plot harvester: self mowing two rows adapter for maize and adapter for sunflower, (row distance 75 cm), equipped with scale,

1 Planting machine: Planting 4 rows, planting heads: 6 pcs 400 x 400 mm and 6 pcs 500 x 500 mm, foil covering adapter, easy to clean.

2 lorry: engine: 150 LE capacity, plateau: 7 m long, 2.4 m wide,
useful weight: 6 t, small plot harvester easy loading,
2 trailer: 2 axes, useful weight 6 t,
2 trailer: 2 axes, useful weight 2 t, small plot drill easy loading
2 Sugar beet harvester: 1 or 2 rows, self mowing, row distance 45 cm
2 Potato harvester: 2 rows
2 Potato planter: 2 rows, easy to clean,
1 Feedstuff harvester for alfalfa, clover and grass
self mowing, wide of work 1.4 m,
equipped with scale,
Title: Improvement of qualification and certification of seeds, propagating material and feeds
Project number: 2002/000-180-01-04

List of Accession related Documents

Last version of NPAA (National Programme of EU Community Achievements) Theme XXXV –April 2001
EU Chapter of „Plant Heath, 2nd sub-chapter” Quality of Seeds and Plants”

Annex to the Committee Decision 1999/850/EC
Accession partnership 1999 Hungary (development of the harmonisation of agricultural, animal and plant health control system).

Proposal for the Government
The Hungarian position at the 8th step of screening of EU Community legislation on agriculture/plant health, permission, marketing and use of pesticides, certification of seeds and propagating material, variety protection, ecological farming, animal fodder’s.
Chapter II, October 1999

Bilateral Screening Protocol
Brussels, November 22, 2000

Accession negotiations common position/Hungary
Negotiation Chapter 7 Agriculture (Veterinary and Phytosanitary Legislation)
Brussels, May 18, 2000

Annual Report of EU Committee 2000 (Regular report)
Chapter 7, Agriculture pages 40-42

TAIEX Report -Agriculture
Phytosanitary Advisory Visit on plant health, seeds, varieties and plant protection products

Guidelines to Prepare the Food Safety Strategy
Plant Health/ Quality of Seeds and Plants
Brussels, February 16, 2001
SANCO D (2001)

National Programme for Adaptation of the Acquis NPAA
XXXV. Theme last version April 2001

Last official meeting on this priority
Technical Meeting on Phytosanitary Issues Chapter 7 Agriculture
Brussels, April 4, 2001

The above-mentioned documents are based on EU Directives and regulations and national
regulations collected in Annex