

Practice and lessons of the European Network on Testing of Agricultural Machinery (ENTAM)

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1. PREFACE

I would like to thank the organisers of this very interesting Roundtable that is taking place in Seoul providing for the participation of experts from all over the world exchanging experiences.

As you all well know the work in rural areas is characterised by a broad range of activities in a wide range of environments making it very difficult to establish simple and defined procedures for every situation and the use of many different machines makes the range even more wider.

The trade and use of machines is becoming the most important part of the work in rural areas even for the less developed parts of the world where there are old and badly maintained machines causing a lot of accidents to operators and losses of the production as well as a decrease of quality of agricultural production. Besides machines are also closely related to the protection of the environment along with the safety of operators and agricultural production (food sector). In addition, machines are a major factor in the budgets of farms. Therefore in some countries Governments have promoted specific organisations dealing with problems related to agricultural mechanisation and ENAMA in Italy as well as ENTAM in Europe are important examples of co-operation in order to improve the sector.

With this presentation I'd like to offer a quick view on the following items:

- status of the art in the European Union;
- Italian experience of ENAMA as a way to promote synergies for the industry, including trade and use of agricultural machines;
- international experience of ENTAM as a way to overcome barriers to regional and global trade including successful strategies for manufacturers to enter new markets;
- policies and strategies for the development of quality, the establishment of co-operation and the removal of barriers.

In other words I'll try to inform you of our experiences in order to offer an example of a new model for the development of the agricultural mechanisation sector.

2 THE STATUS OF THE ART IN THE EUROPEAN UNION.

Actually in the European Union there are many millions tractors and they have to fulfil common requirements for the safety and road circulation. Besides it is estimated that over 50 million other agricultural machines are in use. The regulations for these agricultural

machines are included in the Machine Directive that provides regulations for the safety of operators. Other regulations have to be met for the road circulation and environmental protection with special reference to the use of chemicals. Most of these regulations are based on a self declaration of the manufacturer that has to follow a clear procedure in order to confirm that the machine is able to operate in compliance. The compulsory *CE* mark applied on the machines as a label is the way to recognise those machines that comply with the regulations.

But, for most machines, this *CE* mark is not released after the fulfilment of tests or inspections by experts but it is only a simple self declaration of the manufacturer and does not provide any guarantee for the consumer (farmer or farm contractor).

This situation has often caused problems because users think that when they see the *CE* mark they have a guarantee but they should be aware of the different reality. This problem arose in many discussions at European level because there have been proposals providing for a *CE* mark on the instruction manual and not on the product (machine) in order not to confuse the consumer (farmer).

Together with these new regulations arose the need for a system offering machines that have been checked and tested. Operators may recognise these machines by an additional mark that is placed on the machine near the compulsory *CE* mark.

This new system has been managed by testing and certification organisations that have the duty to test agricultural machines and components in order to offer farmers tested products for a better choice when they have to buy new equipment but also to guarantee them of the fulfilment of safety requirements. Of course only the *CE* mark is compulsory and the additional marks are voluntary.

3 ENAMA: the Italian experience as a way to promote synergies for the industry, the trade and the use of agricultural machines.

In this context in Italy ENAMA was founded and recognised in accordance with the provisions of Presidential Decree 361/2000. It is the operating structure created to provide the agricultural machinery sector with an effective tool to enhance competitiveness and technologies and certify the performance of machines along with safety aspects. To ensure impartiality and interchange with the agricultural world, ENAMA's Members are three Farmers Organisations, the Farm contractors Organisation, the manufacturers Organisation, two Dealers Organisations and the Public sector represented by the Ministry of Agriculture and Forestry, the Regions and the C.R.A. – Isma research and testing station.

The activities carried out by ENAMA range from the certification of technical aspects including the safety of machines and components, to the development of innovation where safety plays a key role and the proposal of new regulations, to international activities inside the ENTAM network that will be described in a separate chapter. Certification is the one of the main activities of ENAMA and is strictly related to safety aspects including the safety of the operator, the environment and the agricultural productions. The ENAMA certification is a voluntary product certification that is allowed by the compulsory regulations (Machine Directive) and offers an important guarantee to manufacturers, dealers and farmers on the fulfilment of the existing standards in the field of safety.

The right definition for the ENAMA certification is: “*voluntary product certification*”. ENAMA checks the conformity of machines to specific “*check lists*” containing the technical requirements provided by normative documents (standards etc.) as well as requirements stated by ENAMA in case there is no official standard. Therefore the ENAMA certification is an “*added value*” on the product that offers a guarantee to the whole sector from the manufacturer to the dealer and the farmer.

At the end of 2005 more than 850 certifications have been released covering many different types of agricultural machines. In the future more machines will be covered according to the needs of farmers and manufacturers.

Some problems arise when efforts are made to make farmers aware of the advantages of using certified machinery because on some products consumers are not accustomed to ask for a certification as a guarantee on the performance and/or safety. For example in the case of toys, consumers are used to ask for a certification allowing the use by children while for computer screens where it is very important according to the level of emission, they are not used to asking but are willing to ask for the dimensions, and colour definition. These examples show very clearly the problems related to the product certification and consumer awareness.

All this is very important for our country because Italy is one of the largest producers of agricultural machinery suitable for most worldwide geographical areas thanks to the fact that Italy has a wide variety of agricultural systems. In fact the diversity of environments in our country has forced our manufacturers to develop machines for different agricultural systems ranging from the small farms of the mountain areas to the big farms and the small Mediterranean farms that have problems with the water management.

4 The international experience of ENTAM as a way to overcome barriers to regional and global trade including successful strategies for manufacturers to enter new markets.

ENTAM is the network comprised of the official testing stations belonging to European countries that have signed an Agreement providing for common activities with the final aim of establishing and recognising tests carried out on performance, safety and environmental aspects of agricultural machinery and implements.

On request of the manufacturer tests are carried out by skilled Testing Stations belonging to the network. The tests are based on national, European or international standards or common agreements (or methodologies) and may give the manufacturer useful information for improving the machines produced and offering operators effective guidance for the best choice and guarantee. The test results may be printed on Reports that are published by the Testing Stations joining ENTAM for overcoming existing barriers. In fact, thanks to the Agreement it is possible to carry out a test at a Member’s facility and have recognition by the other Members for overcoming existing barriers among countries. Of course the Machine Directive has the same purpose but we all know that agriculture is strictly based on tradition and that farmers recognise a good product by the brand name or marks of national institutions. Therefore applying for and obtaining the ENTAM mark on the reports means that the manufacturer operates in an international market and, therefore, it is ensured that all appropriate standards have been followed giving the farmer an effective tool for the best choice when buying machines.

Besides, ENTAM is a powerful system to start other common activities as such as the development of new standards and new technologies for manufacturers and farmers. At the present time we are at the end of some interesting projects financed by the European Union that have the aim to organise and manage strategies for a better use of machinery. Also new technologies provide for better working conditions related to the environmental protection, operator safety and quality of agricultural production.

5 Policies and strategies for the development of quality, the establishment of co-operation and the removal of barriers: the need for establishing a network.

Networking means co-operation and co-operation is a powerful platform to exchange information as well as to provide for the recognition of the activities carried out improving the trade of quality products or in other words quality machinery. The ENTAM experience is very interesting because in a short time it provided for a unique testing and checking system in Europe offering a wide range of information to farmers. It also offers the opportunity for manufacturers to be supported by the national ENTAM partner for the necessary information and the fulfilment of the requirements needed for machines to be sold and used in other countries.

An example may be given by crop protection machines where there are not only common European regulations but also national regulations that may be official or not. The official regulations are provided by the national governments and the others by farmers who use different technologies related to the crop management or to the traditional way to work. In both cases ENTAM offers the opportunity for manufacturers to have all the necessary information as well as the knowledge to build machines that will be well accepted by farmers. This is possible because experts from the different testing stations work together in WG (working groups) to set up common methodologies and share all the necessary information. Co-operation also offers also the possibility to improve tests and optimise investment in the testing equipment. Just some months ago some Italian made mineral spreaders were tested in Denmark according to the ENTAM methodology at the Dias facilities. ENTAM has chosen not to built a testing station for those machines because there is a top testing station in Denmark and thanks to the ENTAM network Italian machines are tested in Denmark. According to this experience we may imagine a new network, perhaps called “ANTAM” (*Asian Network for Testing of Agricultural Machines*) as a powerful tool to build a new international market in connection with the ENTAM network in order to offer a unique opportunity to manufacturers, traders and farmers. The ENTAM experience could be an example to copy and improve according to the needs of the Asian agricultural machinery sector. Besides, a strong connection with the ENTAM network will offer the opportunity to work for a stronger platform for a wider exchange of information, recognition of activities and the improvement of global trade and global quality.

All this becomes more important if we keep in mind that the price of a product is a powerful sales tool but only for a short time. For a long term strategy it is necessary to plan and produce machinery according to the needs of the customer, the environment, the safety and the ethical models.

6. CONCLUSION

I hope to have offered a short but effective presentation on the way we work together in Europe as an example for other geographical areas. Asia has a big potential in this sector that may become even greater if the right choices are made in terms of co-operation throughout the Asian geographic area as well as with other organised systems such as the ENTAM network.

The establishment of a similar network co-operating with the ENTAM network is something I strongly advise because it will offer the unique opportunity to fulfil all the international trade requirements in a system with well defined rules. If we all work without rules even a free market may become dangerous in the future.

Please keep in mind that the price of a product is not the only factor in a market where actors seek for global quality. We have important and well known examples in the car industry.

In other words the quality of the product and of the production process is the basis for the development of the agricultural mechanisation sector and co-operation is the instrument to accomplish it.

Besides we have to remember that certification can be a simplification of the policies because it provides the rules for the game as we may see in Frescoes of the Good and Bad Government displayed in the slides.



Good Government



Bad Government

Notes

- 1 For more information on ENTAM: www.ENTAM.com
- 2 For more information on ENAMA: www.ENAMA.it
- 3 Ambrogio Lorenzetti (14th century):two Italian painters who were brothers. Pietro and Ambrogio, born in Siena, belonged to the Senese school. They were the first Siense to adopt the dramatic quality of the Tuscan sculptor Giovanni Pisano and the naturalistic approach of the Florentine painter Giotto in their experiments with three-dimensional, spatial arrangements, the brothers, particularly Ambrogio, foreshadowed the art of the Renaissance. Ambrogio (1290-1348), more realistic, inventive, and influential than Pietro, is best known for the fresco cycles Good Government and Bad Government (1338-39, Palazzo Publico, Siena), remarkable for their depiction of character and of the Siense scene.