CONSULTATIVE BOARD ON THE WORLD COCOA ECONOMY
Twenty-second meeting
ICCO Offices, London, Monday, 13 September 2010 at 10.00 a.m.

GUIDELINES ON BEST KNOWN PRACTICES IN COCOA WAREHOUSING

Note by the Secretariat:

The attached document containing Some Examples of Best Known Practices in Warehouse Keeping has been kindly been prepared by Mr. Jack Steijn, Secretary General of the European Warehouse Keepers’ Federation, Amsterdam, the Netherlands, and is presented for review by the Board at its 22nd meeting in September 2010.
INTRODUCTION

The European Warehouse Keepers’ Federation (EWF) was established in January 2006. The main objectives of the Federation are the promotion of the interests of the warehouse keepers storing coffee and cocoa, unifying and improving the quality of warehousing services throughout Europe, and the creation of a European level playing field in the warehousing sector.

In the framework of the second objective, a Standards Committee was created. This Committee is working on a set of quality standards for the work of warehouse keepers. Exchange of best known practices forms an important input for this Committee.

External developments

Consumers are becoming increasingly demanding in relation to aspects such as quality, health, social impact and sustainability throughout the food chain. This also reflects on the end products of cocoa. On the other hand, the authorities are placing constraints on the way in which the different parties in the chain undertake their activities, for example, through restrictions in the use of pesticides and through labour regulations (i.e. on weights that can be lifted by workers). As with other food chains, traceability is becoming relevant. Also, the regulations of terminal markets have an impact on the warehouse keepers’ activities.

The influence of climate change is yet another important factor. Whether caused by human activity or not, the average temperature is rising. Insects are usually dormant at low temperatures (below 12 degrees Centigrade), i.e. in late autumn, winter and early spring. These periods are getting shorter, so the insects have more opportunities to multiply. To make matters worse, the insects attract rodents that also attack the bags that hold the cocoa. With fewer means for pest control on the one hand and with growing insect and rodent populations on the other, the problem is becoming difficult to manage.

Co-operation needed

It is very important for the parties in the cocoa chain to co-operate to face the new challenges. Reliable information is needed on the type and quantity of pesticides that are used in each shackle of the chain. Packaging materials should be optimized to repel insects and to withstand the strains of long storage. The exchange of best known practices is an important tool for improving quality throughout the chain and to maintain the position of cocoa as a base for popular consumer goods.
EXAMPLES OF BEST KNOWN PRACTICES

Procedures

As the members of the EWF are active in coffee and cocoa, best known practices are shared across the boundaries of these commodities. Green coffee is much ‘closer to the consumer’ than cocoa beans. In coffee warehousing, the rules of HACCP have already been applied. HACCP concerns food hazards and critical control points. It describes the entire process that the warehouse keeper is responsible for, identifying the risks to food safety and security and the critical points in the process where these risks can be controlled, and finally, developing and executing a policy to contain the hazards. The EWF is currently developing tailor-made HACCP guidelines in a manual for use by coffee warehouse keepers. For cocoa beans, a similar HACCP procedure is under consideration.

Registration

One of the tools in HACCP that can also be used as a stand alone measure is the warehouse logbook, in which every action in the warehouse is recorded: landing of goods, sweeping, fumigating, delivery, etc. The logbook tracks every event in the warehouse and the actions undertaken by the warehouse keeper, making the work transparent. The logbook will show that the warehouse keeper has done his/her utmost to maintain the quality of the goods.

RFID Technology

Pilots have been carried out with the use of RFID technology for tracking and tracing of cocoa beans. With readers attached to shovels and transmitters to the fences between heaps of cocoa beans in bulk, mistakes are avoided as to which cocoa should be delivered to a certain customer, thereby contributing to the guarantee of the origin of the cocoa that is being transported.

Climate control

As insects are only active when temperatures reach values above 12 degrees centigrade approximately, keeping the temperature in the warehouses below these values reduces and even stops the activities. Rodents are repelled and reproduction does not take place. The bags of cocoa can be kept in external good order easily.

Pest control

Amsterdam-based warehouse keepers have undertaken research to identify innovative means for pest control. The study was sponsored by the Dutch Ministry for Agriculture, Nature Preservation and Fisheries from an ICCO fund. The first phase of the study consisted of desk research, benefiting from pest control experience in a broad range of sectors from hospitals to soft commodities. Six methods were identified as promising. Pilots were executed to test whether these methods were indeed effective and efficient.

Pheromones and other biological means

The use of pheromones is already widespread. The use of parasitic wasps turned out to be effective against the cocoa moth and might in the long term be most useful. The wasps infest the larvae of the moths. Cages with cocoa bags that were treated had significantly less cocoa moths than other cages. The wasps have no impact on the cocoa or on the bags.
**Sulfurylfluoride (SO$_2$F$_2$)**

The use of sulfurylfluoride has been successful and can produce results in the short term. There are almost no residues on the beans, it is effective against mice and insects and it is cost effective. It would be necessary to monitor the surroundings of the sheds that are being fumigated and act in case of concentrations outside the buildings. Sulfurylfluoride is already being used with pest control for other products. The producer is now applying for certification with the competent EU authorities for the use of SO$_2$F$_2$ in cocoa.

**Packaging**

Analysis of samples of jute bags has shown that there seems to be no indication that the type of bags, finishing or origin has any influence on the promulgation of insects.

**Restrictions of weight lifted by hand**

European labour laws restrict the weight of items to be lifted by hand. Cocoa bags of 60 to 70 kilos take at least three people to lift. Mechanization and work organization both improve labour conditions. Many innovations have been introduced already but the final solution is not at hand yet.

**Grading**

In order to obtain the same results between different gradings of the same lots of cocoa beans, it is important that grading takes place in comparable conditions. The use of daylight lamps above the grading tables is therefore recommended. Workshops will be organized to train graders in using the same concepts and definitions in order to further harmonize the results of grading.

**CONCLUSIONS**

The EWF has only just begun to set up quality standards, using best known practices as input and ambition as a source of inspiration. The exchange of best known practices throughout the chain and across the continents will help the process. The EWF will keep the ICCO informed about the progress.