Response the the Notification No.2017-141 “Detection and identification of LMOs: Submission of information and nomination of experts”

2018.4.11.

In Republic of Korea, there are several competent national laboratories which are responsible for detection and identification of LMOs. These laboratories are working on the development of LMO qualitative/quantitative methods, education for related officials or experts in accordance with the LMO Acts, the Plant Protection Act, the Food Sanitation Act, etc. In addition, there are many laboratories in universities and research institutes capable of detecting LMO. Representative competent national laboratories are as follows :

○ STRC(Seed testing research center) in KSVS(Korea seed variety service) is charge of detecting LMO events, especially agronomic seed in Korea. We have equipments and researcher to detect LMOs with qualitative and quantitative method. And also we develop the method how to identify seed variety and perform analysis.

○ Experiment Research Institute in NAQS(National Agricultural Products Quality Management Service) is in charge of development of scientific LMO assay method and effective construction of LMO management system for feed and agricultural processing use based on high-tech analysis equipment and researchers.

○ LMO Labs in Plant Quarantine Technology Center and Regional offices (Animal and Plant Quarantine Agency) are in charge of Development of qualitative LMO assay method of feed/seed, Education for government staffs, and LMO Detection with qualitative method.

* 6 regional offices : Incheon airport, Seoul, Jeju, Youngnam, Jungbu, Honam

○ Lab of LMO technology development in MABIK(National marine biodiversity institute of Korea) is in charge of development of detection method and risk assessment method of LMO for marine and fishery.

○ LMO Lab of National Institue of Ecology is charge of development of detection method for imported approved LMO and LMO monitoring in natural environment. Lab staffs validate leaked LMOs using developed detection method(3 step) and remove small-scale LMOs from the field.

※ Step 1(Strip kit analysis), Step 2(PCR), Step 3(Amplified LMO sequencing)

<Annex 1> Representative Competent National Laboratory List

Name of Laboratory	Institution	Capacity
Gene analysis lab.	Seed testing research center	- LMO detection with qualitative and quantitative method - Development of the method how to identify seed variety
Gene Analysis Lab.	Experiment Research Institute in National Agricultural Products Quality Management Service	- Development of qualitative and quantitative LMO assay method of feed and agricultural processing use - LMO identification for post-management of feed - Verification of LMO assay method from LMO development companies - Education for staff in charge of LMO in provincial office and quality control
LMO lab	Animal and plant Quarantine Agency (Plant Quarantine Technology Center)	- Development of qualitative LMO assay method of feed and seed - Education for staff in charge of LMO in Regional office and quality control
LMO lab	Animal and plant Quarantine Agency (Reginal Office)	- LMO detection with qualitative method
Lab of LMO technology development	National marine biodiversity institute of Korea	- Detection of transformed genes by PCR amplification - Detection of reporter proteins from genetically modified organism
LMO lab	National Institute of Ecology	- Development of detection method - LMO monitoring in natural environment