**Information regarding capacity and needs in the detection and identification of living modified organisms, including a list of laboratories and their specific activities in Bosnia and Herzegovina**

The list of laboratories and their specific activities regarding their capacities and needs in the detection and identification of living modified organisms are given below:

* **Institute for Genetic Engineering and Biotechnology (INGEB) of the University of Sarajevo**

Verified methods used in INGEB GMO and food biosafety laboratories are presented in the table below. All methods are based on RealTime PCR with TaqMan probes and validated by the Referent Laboratories for GMO food and food for animals in EU.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Marker | Detection | Identification | Quantification |
|  | P-35S |  |  |  |
|  | CP4-EPSPS |  |  |  |
|  | PAT |  |  |  |
|  | Nptll |  |  |  |
|  | Lecitine -taxon specific (whey) |  |  |  |
|  | Hmg-taxon specific (corn) |  |  |  |
|  | MON40-3-2 |  |  |  |
|  | MON810 |  |  |  |
|  | DP305423 |  |  |  |
|  | TC1507 |  |  |  |
|  | GA21 |  |  |  |
|  | NK603 |  |  |  |

* **Federal Agromediterranean Institute of Mostar**

According to the request for accreditation submitted to the Institute for Accreditation of B&H (BATA), accreditation regarding identification of genetic modified organisms has been done for the following:

* Type of testing/ measurement characteristics: quantitative testing of genetic modification (RealTime PCR)
* PCR, screening elements: promotor 35S CaMV, promotor 34S FMV, terminator NOS, taxon specific markers for CaMV and FMV)
* Testing objective materials/products: corn (plant, seed, grain and corn products); whey (plant, seed, grain and whey products)
* Methods/specifications: TaqMan GMO Extraction Kit Ref.:4466336 Thermo Fisher Scientific; TaqMan; GMO Screening Kit, Ref:4466334 Thermo Fisher Scientific

Scope of work of testing laboratory of Federal Agromediteranean Institute:

LI 19 Molecular biological analysing

LI19.1 Analysing GMO

LI 2 Physico-chemical analysing

LI 2.1 Food

LI 2.15 Alcohol and alcohol products

LI 2.16 Fertilizers

LI 2.4 Agricultural products and materials

LI 2.8 Soil

LI 21. Toxicological Analysing

LI 21.1 food residues and contaminants

LI 3. Microbiological analysing

LI 3.1 Food

LI 3.4 Agricultural products and materials

Federal Agromediteranean Institute of Mostar has accreditation according to BAS EN ISO/ IEC 17025:2006. Laboratory has requested the expansion of accreditation in 2017.

* **Federal Institute of Agriculture Sarajevo**

Laboratory of Federal Institute of Agriculture Sarajevo for testing, control and monitoring of GMO accredited by the Institute for Accreditation of B&H (BATA) according to standard BAS EN ISO/ IEC 17025 is in process of verification of testing methods for identification and quantification of GMO and their preparation for Accreditation.