

RSB Approach to Genetically Modified Organisms

1. Background

Genetically Modified Organisms (GMOs) are widely used in agriculture and biomass processing throughout the world. Direct genetic modifications (which are generally distinguished from natural breeding and hybridization) through engineering are seen as an opportunity to increase crops performance, by improving, for instance, their yield or resistance to certain pests.

However, GMOs are also perceived by civil society as a threat given their potential to transfer modified genetic material to other organisms, therefore contaminating the genome of non-GM crops and natural species. The impact of genetically modified crops or animal products derived from GMO-fed cattle on human health remains relatively unknown and some scientific studies claim to demonstrate the noxious effect of GMOs on living beings.

Thus, GMOs are considered a sensitive technology, which requires strict framework to make sure that the benefits they bring are not offset by additional social and environmental impacts. There exists a wide range of opinions across the private sector and civil society, from calls to completely ban the development and use of GMOs to more liberal approaches.

2. How RSB addresses risks related to GMOs

The RSB is a multi-stakeholder initiative which aims to develop and maintain the most comprehensive standard for sustainable biomass production and use.

When the RSB Steering Board issued the first draft principles for sustainable biofuel production in May 2007, the question of how to address GMOs was already being considered. At this time, Principle 11 only required the use of GMOs in biofuel feedstock production to be fully transparent to downstream stakeholders and users.

On this basis, RSB constituencies decided to establish a group of experts to further develop the GMO requirements in Principle 11 into specific criteria. While transparency remained a central aspect, stakeholders further developed the language to allow the use of GMOs while making sure there were appropriate safeguards in place to prevent any unintended adverse effects to the surrounding environment and people.

In Version Zero of the RSB Standard, which was published in August 2008, Criterion 11e indicated that "The use of genetically modified: plants, micro-organisms, and algae for biofuel production must improve productivity and maintain or improve social and environmental performance, as compared to

common practices and materials under local conditions. Adequate monitoring and preventative measures must be taken to prevent gene migration.”

In Version 1.0, the notion of bringing a clear environmental or social benefit compared to non-GMO alternatives was included as a central element, and continues into the current version of the RSB Standard (Version 2). This means that the RSB does not prohibit the use of genetically modified crops or micro-organisms as long as there is a demonstrated benefit for people or planet, for instance by allowing plants to grow on non-fertile soil or to require less water.

In addition to this, minimum requirements under current Criterion 11b of the RSB Principles & Criteria were added that “Participating Operators using GMOs shall take measures to prevent migration of genetically modified material and shall cooperate with neighbors, regulatory and conservation authorities, and local stakeholders to implement monitoring and preventative measures. Crop-specific and technology-specific mitigation strategies shall be utilized.”

The intent of this language was to indicate that operators using GMOs are responsible for ensuring that genetically modified material does not migrate out of the production site and contaminate the surrounding environment and activities. In addition, disclosure of the GM material being used and cooperation with farming neighbors, local regulators, and local environmental groups is required. This additional language about cooperation was included at the urging of representatives of the US agricultural industry, as a means to be consistent with current co-existence law.

3. Conclusion

Our mission is to ensure the sustainability of all biomaterials and to help people and planet. The use of GMOs remains an important topic of debate among environmentalists, private sector industry, and civil society. The RSB Standard offers an effective approach to ensure that the use of GMOs primarily benefits planet and people and is strictly framed. Meanwhile, the RSB remains the participative and consensual framework for debating and building consensus on important societal topics.