National Academy of Science and Technology Philippines STATEMENT ON GENETICALLY MODIFIED ORGANISMS (GMO) —GOLDEN RICE AND BT EGGPLANT

The Department of Agriculture recently approved two products of modern biotechnology (GMO): (1) Golden Rice for commercial propagation, and (2) Bt eggplant for utilization as food, feed, and processing (or FFP). These are the first products of R and D work on GMO by public research institutes in the Philippines. These are just the latest of a total of 164 approved GMOs (143 for FFP and 21 for propagation), the first one of which was approved for commercial propagation in December 2002.

We have consistently supported the national policy on modern biotechnology. Thus, we join the scientific community in celebrating the approval of Bt eggplant and Golden Rice after undergoing years of research and regulatory scrutiny. We congratulate the Institute of Plant Breeding, University of the Philippines Los Baños (UPLB) for its work on Bt eggplant, and Philippine Rice Research Institute (PhilRice), Department of Agriculture and the International Rice Research Institute (IRRI) for their work on Golden Rice. We also congratulate the government regulatory system for the rigorous work of ensuring that these products are evaluated properly.

Consistent with our mandate to advise the government and Philippine society on matters of scientific importance, we are sharing the following information:

1. A total of 21 regulatory approvals for commercial propagation since 2002 by the Philippine government resulted in a cumulative total of 8.7 million ha of GMOs planted by our farmers. To the best of our knowledge, there is no verified evidence that our regulatory system failed to ensure the safety of these products either to human health or the environment.

2.. The Philippine approval process is based on the same principles and procedures that other countries using GMOs have been using since 1996. By 2020, 2.7 billion ha of GMOs have been planted worldwide. Again, we found no verified report that national regulatory systems failed to ensure the safety of GMOs to human health and the environment.

3. Bt eggplant has been planted for human consumption in Bangladesh since 2014 with a cumulative area of 11,506 ha. There is not a single verified report of adverse effects to human health or the environment of Bt eggplant in that country.

We reviewed the evaluation of GMOs by other scientific bodies, including that of the National Academy of Sciences (USA) in 2016, the Science Advisory Council of the National Science Academies of the EU member states in 2013, 158 Nobel Prize Laureates as of 2021, the American Association for the Advancement of Science in 2013, the American Medical Association in 2012, the World Health Organization in 2014, the European Commission in 2010, and the joint statement issued in 2000 by the US National Academy of Sciences, Royal Society of London, Brazilian Academy of Sciences, Chinese Academy of Sciences, Indian National Science Academy, Mexican Academy of Sciences, and the Third World Academy of Sciences.

The preponderance of evidence about the safety of GMOs from eminent scientific bodies and government regulatory agencies globally gives us the confidence to assure the Filipino public that we can safely plant and consume both Bt eggplant and Golden Rice.

We are issuing this advisory to guide the government and the public in anticipating another wave of misinformation that causes confusion every time a new product of modern biotechnology is offered to the public.

CONTACT PERSON

Academician Eufemio T. Rasco, Jr. Chair, Agricultural Sciences Division

ABOUT NAST PHL

The National Academy of Science and Technology, Philippines (NAST PHL) is an attached agency to the Department of Science and Technology (DOST) mandated to recognize outstanding achievements in science and technology and to serve as reservoir of competent scientific and technological manpower for the country (Presidential Decree No. 1003-A, December 17, 1976). By virtue of Executive Order 818 (July 16, 1982), the Academy was formally charged with the function of advisory body to the President and the Cabinet on policies concerning science and technology in the country.

NATIONAL ACADEMY OF SCIENCE AND TECHNOLOGY PHILIPPINES (NAST PHL) 3rd Level, Science Heritage Building, DOST Compound General Santos Avenue, Bicutan, Taguig City 1631 Website: www.nast.ph Email: secretariat@nast.dost.gov.ph Direct Lines: (63 2) 8838-77-39/66/92

