

**KEYNOTE ADDRESS BY MR LIM KOK THAI, CHIEF EXECUTIVE OFFICER OF
SINGAPORE FOOD AGENCY, AT THE ASIA-PACIFIC AGRI-FOOD INNOVATION WEEK
(DAY 2 – URBAN AGRICULTURE, SUSTAINABLE AQUACULTURE AND PROTEIN
INNOVATION) ON 21 NOVEMBER 2019 AT GRAND HYATT SINGAPORE**

Ladies and Gentlemen

A very good morning. I am very happy to join you at the Asia-Pacific Agri-Food Innovation Week to give this address.

Background

2 Global food demand is growing, driven largely by population growth and urbanisation trends. According to the United Nations Food and Agriculture Organisation (FAO), the global population is set to increase from 7.7 billion today to 9.7 billion in 2050. Global food supply, however, is facing pressures. Climate change and erratic weather patterns have affected crop yield. The loss of arable land and dwindling resources are also eroding away the production capacities of traditional food producing farms. The imbalance resulting from a rising global food demand and an increasingly constrained global food supply will inevitably lead us towards a global food shortage scenario. Responding to this global food challenge will require harnessing highly productive and innovative food production technologies.

3 As Singapore imports more than 90 per cent of our food from overseas, we will come under stress when global food supply is not able to catch up with global food demand. We have thus set a “30 by 30” goal to develop the capability and capacity of our agri-food industry to produce 30 per cent of Singapore’s nutritional needs by the year 2030.

Innovation in the Agri-Food Industry

4 Achieving the “30 by 30” goal will require the agri-food industry to embrace technology and innovation. The rapid advancement in agri-food technology has made it possible for us to explore innovative ways of growing or producing more food without huge amounts of land and labour. We are already seeing food produced in industrial spaces using indoor vertical farming and among the community on the rooftops of multi-story car parks in housing estates. Indoor vertical farming also has the potential to produce much higher yields, some 10 to 15 times more than traditional soil-based farming.

5 In Singapore, we are seeing some high-tech farms anchoring themselves here and we look forward to seeing more of such farms set-up and scale up. Eco-Ark, a high-tech fish farm, capable of producing up to 20 times the “minimum production level” of coastal farms was unveiled in Singapore earlier this week. Other farms such as Sustenir are able to consistently grow high quality vegetables and fruits as they can optimise plant growth and increase yield exponentially through technologies like LED lighting and climate control. The common features of these high-tech farms are that they are climate resilient as well as manpower and space efficient. These farms are what we need given our climate and resource challenges.

6 Another exciting area of agri-food innovation is the development of novel food. I would say that almost all of you present would have heard and many of you would have tried the Impossible Burger which is made from plant-based ingredients but tastes like meat. Such innovative food processing technologies could produce new sources of nutrients to address the global food challenge. The production of novel food, such as cultured meat and alternative proteins, for human consumption is however a very new and nascent industry. Novel food has great potential to solve the global food challenge but we also want to ensure that these food products are safe for consumption.

7 Since last year, the Singapore Food Agency (then Agri-Food & Veterinary Authority of Singapore) initiated a series of public consultations on a Regulatory Framework for Novel Food and Novel Food Ingredients in Singapore. In the midst of the consultations, then-AVA, and now SFA, also undertook an evaluation of JUST Eggs or JUST Scramble, as well as the Impossible Burger and found them safe for consumption. Comments gathered from the public consultation, together with our experiences gained from these evaluations provided us the opportunity to better understand and address the different types of challenges in the evaluation of novel food and novel food ingredients. We are now ready to roll out the regulatory framework for novel food. This will allow food businesses the space to innovate and produce new food products, whilst ensuring that any food safety risks of these new products are identified early and managed. As part of the framework, we are also establishing a novel food safety expert working group.

8 Earlier this week, SFA also organised a Regulators' Forum on Novel Food involving local and overseas regulators and industry players. I understand that there was a good discussion among participants on the current regulatory landscape as well as the challenges and possible solutions in the safety assessment of novel food. We will continue to identify suitable platforms and opportunities to drive the discussion on novel food and alternative proteins that can address the global food challenge and support Singapore's "30 by 30" goal.

Driving Research and Innovation

9 Besides novel food, Singapore also actively supports the agri-tech sector. Research and innovation play a crucial role in plugging existing technological gaps in the agri-food sector. And we are in a good position. Singapore has good R&D capabilities and a strong intellectual property framework that protects R&D findings. We also have good infrastructure

and connectivity. These provide a conducive environment for the development and adoption of agri-food technology.

10 As part of the Singapore Food Story, we are investing \$144 million under the government's Research, Innovation and Enterprise 2020 (RIE2020) plan into food research. The Singapore Food Story R&D Programme, jointly developed by the SFA and A*STAR, aims to grow a vibrant and forward-looking agri-tech and food ecosystem by focusing on three R&D themes: (i) Sustainable Urban Food Production; (ii) Future Foods: Advanced Biotech-based Protein Production; and (iii) Food Safety Science and Innovation.

11 The theme on Future Foods will advance the understanding of the production of novel food and alternative proteins. Apart from Future Foods, SFA will be launching the first grant call for the Sustainable Urban Food Production theme by end of this year. This grant call will provide funding support for innovative ideas that address challenges facing the urban agriculture and tropical aquaculture industries. We encourage the industry and local researchers to collaborate in industry-relevant research, and look forward to receiving innovative proposals that are applicable within and beyond Singapore.

Conclusion

12 There is tremendous potential for Singapore to leverage on innovation to grow the agri-food industry to address the global food challenge and achieve the "30 by 30" goal for Singapore.

13 I wish you a fruitful and enriching discussion ahead. Thank you.