

Keynote Address by Mr Lim Kok Thai, Chief Executive Officer of Singapore Food Agency at the Asia-Pacific Agri-Food Innovation Summit on 19 November 2020

Distinguished Guests

Ladies and Gentlemen

Good afternoon and thank you for inviting me to the Asia-Pacific Agri-Food Innovation Summit this year.

2 Much has changed since we last met in 2019. The COVID-19 pandemic made us rethink how we work, live and play. Supply chains globally were disrupted, as borders closed. Business resilience became much more important than the ability to move goods efficiently. Many accelerated their digitalisation plans and went online.

3 In the meantime, online food delivery, livestreaming of fresh food and takeaways became the new norms as we stayed at home. We also paid much more attention to our personal hygiene, food safety and impact on the environment.

4 Many may see this as a threat to our usual way of lives. It is however an opportunity for everyone, including Singapore, to rethink how we can build a resilient, sustainable and safe future food system to meet our food security needs.

5 To succeed, there are 3 important ingredients, what I call the 3 “Rs”:

- a. The first “R” is **R&D innovation**. We need to innovate to increase local food production in a sustainable manner;
- b. The second “R” is **Regulations**. We need to adapt our policies nimbly to take advantage of new growth opportunities as they emerge; and
- c. The final “R” is **Right-skilling our workforce**. We need to build capabilities and capacity to take on new opportunities in urban agriculture, tropical aquaculture, agri-tech, food safety and food science.

R&D: Enabling Safe Local Food Production

6 On the first “R”, the COVID-19 pandemic underscored the importance of local production of safe food. **R&D innovation** is a key enabler. Given its resource constraints, it is important for Singapore to innovate and develop less resource intensive production methods. This will allow us to work towards our 30-by-30 goal, which is to grow enough food in Singapore, to meet 30 per cent of our nutritional needs by 2030 in a sustainable manner.

7 Singapore will continue our efforts on food research and innovation. We have set aside \$144 million for the Singapore Food Story R&D Programme under the government’s Research, Innovation and Enterprise plan. The Singapore Food Agency and A*STAR have launched grant calls on Sustainable Urban Food Production and Alternative Protein Seed Challenge. We look forward to announcing the results in the coming months.

8 To further strengthen our food security amidst the COVID-19 pandemic, the Singapore Food Agency, or SFA in short, launched the ‘30x30 Express’ grant call earlier this year. The grant supports proposals which incorporate highly productive farming systems that can be constructed and implemented quickly. In September, \$39.4 million was awarded to nine companies. One of the grant recipients is Indoor Farm Factory Innovation, or I.F.F.I in short. Using a combination of sensors, condition monitoring and artificial intelligence software, I.F.F.I is able to achieve optimum growing conditions all year round. Innovative water treatment system also reduces bacteria count, improve yield rate for its crops, and extend the shelf life of its produce.

9 I hope to see more of such innovative ideas sprout and grow. In October, SFA announced plans to transform Lim Chu Kang into a high-tech agri-food cluster. When completed, the cluster is envisioned to produce more than 3 times its current food production. At present, an average vegetable farm in Singapore occupies around 2 hectares of land and produces about 130 tonnes per hectare per year.

10 Besides agri-farms, Singapore is also deepening our capabilities in aquaculture production. SFA runs the Marine Aquaculture Centre, or MAC in short. MAC has been collaborating with the industry on various research projects since 2003. More can be done, as we bring innovation upstream. With this in mind, SFA established a new Feed Trial Facility at the MAC to catalyst research on fish nutrition and feed development. We aim to develop quality feeds that promote healthy growth of locally farmed fishes. The new Feed Trial Facility at MAC will place Singapore in a better position to be an aquaculture technology hub in the region.

Regulations: Enabling a Vibrant and Safe Food Ecosystem

11 Turning to the second “R”. Policies often play catch-up as the industry innovates and new business models emerge. As we explore new agri-food and production capabilities, there is a need to create and maintain a robust and conducive regulatory environment to catalyse the development of a vibrant agri-food sector. At the same time, it is important to ensure that these innovations and new food products are safe for consumption.

12 As part of our continued efforts to proactively review and update regulations, SFA and Enterprise Singapore launched an industry guide to provide companies in the farming industry with one consolidated knowledge resource. This was developed in consultation with key industry players, including the Singapore Agri-Food Enterprises Federation Limited (SAFEF), to help companies better understand and navigate the regulatory landscape in Singapore. We hope that companies will find this guide useful as they capture opportunities in this exciting growth sector valued at approximately S\$5 trillion globally.

13 The alternative protein industry is growing exponentially. Major brands have expanded into Singapore, joining our local plant-based and cell-based start-ups such as Next Gen and Shiok Meats. Eat Just, a California-based food technology company, for example, has announced that it will be building a US\$120 million plant protein production facility here. In 2019, SFA introduced a regulatory framework for novel foods to guide food businesses on how to seek pre-market approval from SFA for novel foods or foods that do not have a history of use as food. To facilitate the

process for the companies, SFA released a guidance document on the food safety information that would be required for assessment.

14 Our work however cannot stop here. We must continue to adapt our regulatory efforts to the changing landscape. Hence, SFA established an Expert Group on Novel Foods to provide scientific advice as SFA refines our regulatory framework. The Expert Group comprises leading scientists across multiple disciplines and they work with SFA to ensure that safety assessments are rigorously reviewed and evaluated.

15 To augment our efforts to nurture a safe food ecosystem here, SFA, A*STAR and the Nanyang Technological University (NTU) jointly established the Future Ready Food Safety Hub, or FRESH in short. FRESH serves as the Singapore's lead scientific platform to build up Singapore's food safety science in areas such as risk assessment and new food safety standards, to enable greater regulatory responsiveness.

Building a Future Ready Workforce

16 Finally, on the third "R". As the agri-tech industry innovates, it is important for Singapore to have a Future Ready Workforce that stays relevant. Over the next 10 years, new and upgraded jobs are expected to be created as Singapore pursues sustainable development. Skilled jobs will be created in the high-tech agriculture and aquaculture industry as Singapore works towards the 30-by-30 goal.

17 As farms ramp up local production and embrace new technologies, we will need people who are multi-skilled in plant science, engineering and info-comm technology. It is important that we continue to upskill and build a pipeline of agri-food sector workforce that is ready for these exciting opportunities. SFA has been and will continue to work with the Institutes of Higher Learning and local farms to seed programmes to build up a pipeline of talent with industry-relevant skillsets. To attract more Singaporeans to join the sector, SFA is currently working with industry associations like SAFEF and our local farms to match interested jobseekers with available vacancies posted on the MyCareersFuture portal.

Conclusion

18 In conclusion, the agri-food sector is rapidly transforming, driven by climate change, technological developments and evolving consumer food preferences. It is a timely opportunity for regulators, industry and research institutions to collaborate on the 3Rs – R&D Innovation, Regulations and Right-Skilling – to tap on green growth opportunities and attract more Singaporeans to join our Singapore Food Story journey.

19 By strengthening our food resilience together, we help sustain Singaporeans' access to, and consumption of, safe local food. I wish you a fruitful discussion ahead.

20 Thank you.