







New Clean and Green Standard on sustainable urban farming practices to assure quality of local produce

Local vegetable farms can benefit from the Standard's guidelines on resource efficient and sustainable practices

The Singapore Food Agency (SFA), together with Enterprise Singapore (ESG), the Singapore Manufacturing Federation – Standards Development Organisation (SMF-SDO) and Republic Polytechnic (RP), have launched a new Standard for local farms known as the "SS 661: Specification for Clean and Green Urban Farms – Agriculture." The new Standard will assure consumers that produce from local vegetable farms are fresh, free from synthetic pesticides, and grown sustainably with efficient use of resources without compromising the environment. This will help in boosting demand for local produce as we work towards achieving Singapore's '30 by 30' goal, which is to meet 30% of our nutritional needs locally by 2030. Refer to **Annex A** for more details on the Standard.

- The SS 661 is a set of best practices and farm management system to ensure the production of clean and green farm produce. The Standard also sets out a criteria that urban vegetable farms have to meet in terms of farm management, techniques and practices to achieve a clean and green production system¹. This ranges from employees' minimum competency requirements, plans for the responsible management of resources, green procurement practices, farm operations², to procedures for handling customer complaints, farm product recalls and conducting internal audits. The Standard will also help vegetable farms adopt smart farming techniques and practices to reduce wastage of resources, incorporate circularity in their resource management, and optimise operational efficiency.
- 3 Dr Tan Lee Kim, Director-General, Food Administration and Deputy Chief Executive, Singapore Food Agency, said, "The launch of the Clean and Green Urban Farms Agriculture Standard has come at a pertinent time where we face increasing challenges from

¹ Clean farm production refers to a production system that excludes the use of pollutive farm inputs (e.g. synthetic pesticides) and leaves behind undesirable residues to consumers and environment. Green farm production refers to a production system that ensures efficient use of farm inputs and natural resources, and recycling of farm waste to minimise impact on the environment and ecosystem and optimise its farm production.

² Farm operations entail the management of water, fertiliser and energy sources to support daily operations. It also includes activities pertaining to crop protection, harvesting and packaging of produce and the storage and distribution of farm products.









climate change, which can put a strain on food supply chains, including our local food production. Under the Singapore Green Plan unveiled last month, we have set our sights as a nation to build a more sustainable future. The Standard will be critical in ensuring our local farms employ farming practices that make efficient use of our resources to grow more in land-scare Singapore and are sustainable in the long-run. As a result, local urban farms will be recognised for producing safe, quality food, using resource-efficient practices in a clean and sustainable environment. This will allow us to differentiate and brand local produce, further strengthening Singapore's reputation for quality produce as we work towards achieving our '30 by 30' goal."

- 4 Ms Choy Sauw Kook, Director-General, Quality & Excellence, Enterprise Singapore, said, "The SS 661 supports Singapore's increasing focus on food production. It bolsters consumer confidence that produce from our local farms are grown in a more sustainable manner as compared to conventional farming. When farms are certified to this new standard, consumers will have the added assurance that clean and green benchmarks have been met across the farm's entire value chain. I thank the Food Standards Committee members and the SFA, for driving top of mind trust for our local farms."
- Mr Douglas Foo, President, Singapore Manufacturing Federation (SMF), said, "The SMF is pleased to be a key partner in the development of SS 661, through the SMF-SDO. As the advocate for transforming manufacturing in Singapore towards Industry 4.0, the SMF strongly supports the use of smart farming technologies to improve efficiency, and, concurrently ensuring produce are grown in a clean and green environment. The SMF remains committed to the wellbeing of Singaporeans and looks forward to a local agricultural industry that is sustainable through advanced technologies such as integrated sensors, remote monitoring and control systems, and controlled lighting, playing a part in Singapore's '30 by 30' goal."
- Or Lim Boon Whatt, Director, School of Applied Science, Republic Polytechnic, said, "RP is pleased to collaborate with the Singapore Food Agency in implementing the Clean & Green Urban Farms Agriculture Standard. With the growing importance of developing local agri-tech capabilities to meet our '30 by 30' goal, there is a need for a skilled workforce well-versed in the latest growing technologies as well as sustainable farming practices. With









our capabilities and research expertise in urban agricultural technology, RP is well-placed to support the professional training and growth of the industry."

Following the launch of the Standard, SFA will work with local farmers and industry players to promote and raise awareness of the Standard. RP will also launch a 3-day training course, titled "Sustainable Agriculture: Clean and Green Standard for Urban Farms", from April 2021 to assist farms in adopting the Standard³. Local farms can also tap on the recently announced SFA's \$60 million Agri-Food Cluster Transformation (ACT) Fund to implement the new Standard.

 $^{^{\}rm 3}$ Training courses will be funded under SkillsFuture Singapore.









About Singapore Food Agency

As the lead agency for food-related matters, the Singapore Food Agency's mission is to ensure and secure a supply of safe food for Singapore. SFA works hand-in-hand with the industry and consumers to grow our three "food baskets" – Diversify import sources, Grow local, and Grow overseas, as well as ensure food safety from farm-to-fork.

SFA also partners food businesses to strengthen capabilities, tap on technologies to raise productivity, undertake research to develop new lines of business, and catalyse industry transformation to ensure food security.

For more information on SFA, visit www.sfa.gov.sg.

About Enterprise Singapore

Enterprise Singapore is the government agency championing enterprise development. We work with committed companies to build capabilities, innovate and internationalise.

We also support the growth of Singapore as a hub for global trading and startups, and build trust in Singapore's products and services through quality and standards.

Visit www.enterprisesg.gov.sg for more information.

About Singapore Manufacturing Federation

Established since 1932, the Singapore Manufacturing Federation (SMF) represents the interest of the manufacturing community in Singapore, driving its competitiveness and sustainable growth through serving industry-specific needs. Supported by 10 industry groups and its Associated Services, the SMF enhances the competitiveness of the manufacturing community by encouraging capacity development and capability building, innovation and productivity. The SMF provides opportunities for companies to collaborate, network and to grow and expand both locally and internationally. Current membership stands at about 5,000 corporate members, consisting of SMEs, MNCs and Affiliate Members. For more information, please visit www.smfederation.org.sg.

Singapore Manufacturing Federation – Standards Development Organisation is supported by Enterprise Singapore and endorsed by the Singapore Standards Council to manage the development of standards and facilitate the promotion of these standards for four Standards Committees under the Singapore Standards Council. These Standards Committeezs are as follows:

Biomedical & Health Standards Committee (BHSC) Food Standards Committee (FSC) Manufacturing Standards Committee (MSC) Quality & Safety Standards Committee (QSSC)

About Republic Polytechnic









The first educational institution in Singapore to leverage the Problem-based Learning approach for all its diploma programmes, Republic Polytechnic (RP) has seven schools and one academic centre offering 37 full-time diplomas in Applied Science, Engineering, Management and Communication, Hospitality, Infocomm, Sports, Health & Leisure, and Technology for the Arts.

RP is committed to nurturing professionals with strong problem-solving capabilities through an innovative and entrepreneurial learning environment, based on a holistic and industry-relevant curriculum. RP's Academy For Continuing Education also offers a comprehensive suite of lifelong learning programmes to provide adult learners with skills upgrading opportunities.

For more information, visit http://www.rp.edu.sg









ANNEX A: More information on the SS 661: Specification for Clean and Green Urban Farms – Agriculture

A green farm is one that actively strives to minimise negative environmental impacts resulting from production activities. For food to be produced in an environmentally responsible and sustainable manner, the SS 661 recommends for:

Quality indicators

The SS 661 requires farms to establish guidelines to ensure freshness until the produce reaches supermarket shelves. Samples of farm products should also be tested by an accredited laboratory to ensure chemical pesticide residues are below stipulated limits.

Green Indicators

Green indicators – water, fertilizer, and energy use - have been identified under the SS 661 for monitoring every six months. The SS 661 sets out the applicable culture systems, and performance levels for farms to adhere to. It also sets out the net edible crop waste limit local farms should observe.

Heavy metal safety limits

Requirements have also been developed under the SS 661 to arrest the presence of - Arsenic, Cadmium, Chromium, Lead and Mercury – found in fertilisers, soil, soil amendment, and substrate.

Waste reduction and Upcycling efforts

The SS 661 provides a waste hierarchy to guide local farms on how to retain the value of edible and non-edible crop waste. Edible crop waste, for example, can be reduced with general farm process improvements or through redistribution. For inedible crop waste or solid farm waste, local farms can consider equipment or system design change, energy extraction, composting, developing feed or finding an alternative use before disposal.