



Plantation

PRESS RELEASE

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SDP Mechanises and Automates Estate Operations

- *All non-harvesting work to be mechanised by the end of 2023, reducing the need for workers by 55%*
- *Malaysia operations to have 100% local workers by the end of 2027*
- *Tremendous push towards large scale automation in progress*

Petaling Jaya, 21 October 2022 – In a watershed for the palm oil industry, Sime Darby Plantation Berhad (SDP) announced that it has successfully mechanised several tasks across its Malaysian plantation operations. As a result of a broadscale initiative launched just two years ago, SDP expects to eliminate the need for manual workers in all non-harvesting activities by the end of 2023.

“We expect to reduce the number of plantation workers by 55% by the end of 2023 and by the end of 2024, improve our land-to-man ratio to 1:17.5 or one worker for every 17.5 hectares (ha),” SDP Group Managing Director, Mohamad Helmy Othman Basha said. The current industry average is one worker for every 8 ha. As dependence on manual labour decreases, SDP also expects to improve productivity.

Speaking at the annual Oils and Fats International Conference (OFIC) this week, organised by the Malaysian Oil Scientists’ and Technologists’ Association, Mohamad Helmy unveiled seven new initiatives, several of which are industry firsts that the company had developed internally or co-developed with start-ups and technology providers. Several of these initiatives have already been implemented across the Group’s Malaysian operations, while others are either in prototype or concept stage.

“After more than 100 years of working the same way, heavily dependent on manual and menial labour, our industry can finally move forward,” Mohamad Helmy said.

Through advanced mechanisation, automation and digitalisation of its operations, SDP is making work in plantations more sophisticated and less laborious, which will also go a long way towards attracting a more skilled Malaysian workforce to the industry. SDP aims to have a 100% local workforce for its Malaysian plantation operations by the end of 2027.

Mohamad Helmy showed footage of drones spraying seedlings in nurseries and unmanned ground vehicles undertaking tasks that have been described as “dirty, dangerous and difficult”. In SDP’s Malaysia operations, drones have replaced over 100 workers who, historically, had carried backpacks of chemicals to spray young seedlings in nurseries.

“During the pandemic, when foreign workers returned to their home countries, we were unable to replace them, which resulted in a sharp drop in productivity. We knew we had to take drastic action,” Mohamad Helmy said. To find new solutions for the age-old problem, a special project team within SDP was formed in October 2020, comprising leaders from different disciplines within the company. The initiative was dubbed ‘Project Infinity’. Today, the future envisioned by the Company two years ago is taking shape.

The palm oil industry is typically, highly labour-intensive. Prior to the pandemic, 80% to 85% of the plantation operations’ workforce were migrant workers, though at SDP, foreign workers accounted for about 75% of the plantation workforce.

Increasing productivity

Mohamad Helmy explained that there are two (2) critical areas in increasing productivity, namely, yield potential and realised yield.

“For many years, SDP has been focusing on improving yield potential and we are proud to have achieved this with our ground-breaking research into the oil palm genome to produce what is perhaps the world’s best oil palm seed, the GenomeSelect™.

“But yield potential means nothing if you cannot realise the actual potential of the seeds. This requires the seeds to be grown in the best way and crops to be recovered as efficiently as possible, to be sent to our mills, as fresh as possible.”

Whilst SDP is already using machines to carry out crop evacuation work in its operations, under its accelerated mechanisation programme, several initiatives have been introduced to improve the upkeep of immature and mature fields in various terrains. These include:

1. The ST 101 Geo or the automatic Strip Herbicide Sprayer machine for mature fields, which is ideal for flat or undulating areas. Each machine reduces manpower by 5 workers, and now covers 25 ha per day, compared to 5 ha/day when it was done manually.
2. The Azman Sri Pulai (ASP) Herbicide Strip Sprayer for mature areas, a machine developed in-house. It is ideal for terraces of less than 15-degrees and reduces manpower needs by 3 workers. It has a coverage of 8 Ha a day compared with only 3 Ha/day if done manually. The machine also reduces costs by 63%.
3. The Mechanised Fertiliser Machine (MFM) and Mechanised Fertiliser Terrace Applicator (MTFA) are machines used for fertiliser application in mature areas that are flat, undulating or terraced. It can reduce manpower by 4 workers and has a coverage of 8 ha/day, compared with only 2 ha/day if done manually.
4. The P2P Drone is a large volume capacity Unmanned Aerial Vehicle sprayer that delivers extended hectareage precision spraying of pesticide based on crown tracking, using Artificial Intelligence. It delivers a 70% target labour reduction and covers 8 ha/day, compared to just 3 ha/day when done manually.
5. The Nursery Drone Pest and Disease (P&D) Sprayer has an 88% target labour reduction for Pest & Disease operations at nurseries. The machine increases productivity to 15,000 seedlings a day, compared to only 1,800 a day if done manually.

A key area that is still being studied is the harvesting of oil palm fruits, which requires skilled manual labour. Harvesting can be difficult if palm trees are too tall. SDP’s newly established robotics unit is working with several organisations to find viable solutions.

With more technology companies, institutions and organisations, both local and abroad, that are already or will be working in this space, Mohamad Helmy believes there will be

more opportunities for Malaysians to become a part of this exciting transformation and contribute to the future of the Malaysian palm oil industry.

To view SDP's latest mechanisation video shown during the Oils and Fats International Congress 2022, please click on this link: www.youtube.com/watch?v=89vZx7xFnig&t=1s

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ABOUT SIME DARBY PLANTATION

Sime Darby Plantation is the world's largest producer of Certified Sustainable Palm Oil (CSPO), with a production of 2.150 million MT (as of 31 December 2021).

As a fully integrated global plantation company, SDP is involved in various activities along the full spectrum of the palm oil value chain, including upstream and downstream operations, Research & Development, renewables as well as agri-business. Its upstream operations are spread across Malaysia, Indonesia, Papua New Guinea and the Solomon Islands. Its downstream business, also known as Sime Darby Oils, spans 12 countries worldwide and involves the trading, manufacturing, as well as the sales and marketing of refined oils and fats products, oleochemicals, palm oil-based biodiesel, nutraceuticals and other palm oil derivatives.

With a workforce of about 80,000 employees and a strong focus on operational excellence, research, innovation and sustainability, Sime Darby Plantation is one of the largest companies on Bursa Malaysia, with a market capitalisation of RM30.43 bil (USD6.44 bil) as of 20 October 2022.