

ASIA PALM OIL



PALM OIL INDUSTRY AND TECHNOLOGY NEWS

**More Than 750 ISPO
Certificates Issued for
Producers as of Last Year**

**Malaysian Palm Oil Board:
Cooking Oil in Polybags Meets
Prescribed Quality, Not Recycled**

**Reducing Particulate Matter
Emissions from Palm Oil Mills**



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RM 10/USD 5

**In The Hot Seat
Boron a Major Key for
Fertilizers in the Palm Oil
Industry**



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Boron a Major Key for Fertilizers in the Palm Oil Industry

Weng Kee Ch'ng

Regional Senior Agronomist



Weng Kee is a seasoned agribusiness professional currently handling commercial and technical functions for agriculture customers in Southeast Asia and China. He has worked in a variety of roles for stable, emerging, and start-up organizations, including:

- Business development
- Technical
- Sales and marketing
- Retail sales

In addition, Weng Kee has a successful record of establishing business and high performance teams.

He received his bachelor's degree in biology/biological sciences from the Universiti Putra Malaysia and his master's degree in food science and technology from the Universiti Sains Malaysia.



Palm fruit treated with borates. Photo courtesy of U.S. Borax

1. As a leading supplier of borates, briefly share with us U.S. Borax's, history and milestones in this industry.

U.S. Borax traces its roots to California's Death Valley, where borate deposits were discovered in 1872. The first 20 mule team hauled borax 165 miles through Death Valley in 1883. Fully loaded with two ore wagons and a 1,200-gallon water wagon, the rig weighed 36.5 tons. Though the expansion of railways led to the 20 mule team's retirement, the team has lived on for more than a century as a trademark for U.S. Borax.

Since 1924, we have shipped products from our facility in the Port of Los Angeles. The refinery and shipping operation produces and ships more than 36,000 tons of packaged goods and more than 300,000 tons of bulk material to customers in Europe, Malaysia, and China.

Today, U.S. Borax is acknowledged as the world leader in borate technology, research, and development.



With crinkled pinnae, the leaf bone shrinks. This is a sign of severe boron deficiency. Photo courtesy of U.S. Borax

2. How did U.S. Borax grow to a massive 1,700 locations globally? What is the current demand for the refined borates industry?

U.S. Borax supplies about one-third of the world's need for refined borates. We have grown our business through our high standard for quality and purity, ensuring the best performance for growers and fertilizer manufacturers. Our technical, scientific, and agriculture experts are dedicated to continuous research and product improvement as well as a high level of personalized, customer service. The bottom line is that we care about our customers' crops. That's why U.S. Borax mines and refines only top-quality boron, free of unwanted contaminants.



Farmer applies Fertibor to palm oil plant. Photo courtesy of U.S. Borax

3. Borates are used in fertilizers as a mineral essential to plant growth. What are the advantages of having boron in fertilizers?

As a micronutrient, boron is essential to plant growth. Adequate boron is necessary for proper absorption of macronutrients and for maintaining the integrity of plant cell walls.

Adequate boron is a crucial factor in high crop yields and quality. Existing research indicates that boron plays a significant role in:

- The strength of plant cell walls
- Membrane function and cell division
- Stimulation/inhibition of metabolic pathways
- Development of flowers and fruit
- Both new and reproductive growth

For oil palm, boron is necessary for:

- Preventing "fishbone leaf" (the development of extremely small, thin pinnae)
- Preventing "hooked leaf" (a single or double hook on the pinnae near the tip)
- Elimination of white stripe occurrence in leaves
- Preventing seedless fruitlet (parthenocarpy)
- Adequate fresh fruit bunch formation
- Enhanced root growth

4. What fertilizer products does U.S. Borax manufacture for the palm oil industry?

Fertibor® is our primary product sold in SEA for palm oil, but we also offer Solubor® and Granubor®. Fertibor® (15% B) is a fine crystalline borate ideal for NPK compound fertilizers and suspensions. Manufactured as free-flowing granules, Fertibor® is easily handled and offers superior flow and consistency. For more information about our fertilizer products, please visit: <https://agriculture.borax.com/products>



Fertibor granules are ideal for compound fertilizers and suspensions. Photo courtesy of U.S. Borax



Boron deficient fruit. Photo courtesy of U.S. Borax

5. U.S. Borax's parent company launched its first integrated sustainability strategy in 2018. Why was the Roundtable on Sustainable Palm Oil (RSPO) platform chosen? How important is sustainability to U.S. Borax?

We've been an affiliate member of the RSPO since 2008. The RSPO has developed a set of environmental and social criteria which companies must comply with in order to produce Certified Sustainable Palm Oil (CSPO). When they are properly applied, these criteria can help to minimize the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions.

The RSPO has more than 4,000 members worldwide who represent all links along the palm oil supply chain. They have committed to produce, source, and/or use sustainable palm oil certified by the RSPO. Not only RSPO, we also encourage plantation and small holder to adopt MSPO/ISPO for sustainability of oil palm business.

U.S. Borax is committed to adopting high standards, often going beyond legal requirements, on the sustainability issues that are material to our business, our employees, the communities that host us, and the customers that buy and use our products.

Our world's population is growing rapidly—yet the amount of arable land is not. A changing climate. Soil contamination and depletion. Crop demands. All threaten our ability to maintain a sufficient global food supply.

U.S. Borax wants to help farmers meet society's needs today without hindering future generations' ability to feed themselves. Through our sustainable agriculture policies, we promote farming practices and methods that are environmentally conscience, good for local communities, and profitable for growers.

6. Has the pandemic dampened the growth of U.S. Borax's business in the palm oil industry and how has it affected expansion plans (if any)?

We saw some challenges and new rules and regulations on the way we operate in the value chain at the start of pandemic. But, once we understood the “new normal” and adapted, we were back on the right track as in our plans. Our business continues to grow and develop in the palm oil industry. The majority of plantation users are aware of the significance of borates in fruit formation. They are using our product to increase the quantity and quality of FFB in order to capitalize on the current market's high CPO prices.

About U.S. Borax

U.S. Borax is a global leader in the supply and science of borates—naturally-occurring minerals containing boron and other elements. We are 1,000 people serving 500 customers with more than 1,700 delivery locations globally. We supply 30% of the world's need for refined borates from our world-class mine in Boron, California, about 100 miles northeast of Los Angeles. We pioneer the elements of modern living, including:

- Minerals that make a difference: Consistent product quality secured by ISO 9001:2015 registration of its integrated quality management systems
- People who make a difference: Experts in borate chemistry, technical support, and customer service
- Solutions that make a difference: Strategic inventory placement and long-term contracts with shippers to ensure supply reliability.

Our local agriculture experts understand the uses and benefits of boron on crops. In addition to a global sales team, we have a number of agronomists on staff to help fertilizer distributors maximize the benefits of borates in agriculture applications. Our Ag team can answer individual grower's questions and concerns about their particular crop.

For more information, please visit our web sites:

- English: <https://agriculture.borax.com/>
- Chinese: <https://agriculture-china.borax.com/>
- Malay resources: <https://agriculture.borax.com/resources/malay>