Making every hectare count

Rice industry consultant Datuk S. Jegathaeesan says the difference between Sekinchan and Muda is the human variable. Mada general manager Datuk Abdul Rahim Saleh says the challenge in Kedah is infrastructure, irrigation in particular.
As the rice bowl of the country, Kedah has been in the spotlight since the cost of the staple has doubled over the past year. YONG HUEY JIUN investigates why grain yield is still low in this northwestern state of Peninsular Malaysia.

COASTING along small town roads in Kedah, it’s impossible to miss the vast, green expanses of neatly delineated padi fields. These rice plains cover 106,000 hectares of Kedah’s entire 942,500ha, making it the state with the largest padi hectarage in the country.

With an average padi yield of 5.4 tonnes per hectare, the state ranks third in Malaysia. But the mention of high yield evokes another name: Sekinchan, which produces an average of 10 tonnes per hectare.

The small town, dubbed the rice bowl of Selangor, is renowned for its consistently high yield. But padi hectarage in the Muda area in Kedah — under the Muda Agricultural Development Authority (Mada) — is about 50 times more than Sekinchan’s 1,900ha, making it much harder to manage.

Since the establishment of Mada in the 1970s, the government has channelled RM6.8 billion into its projects. According to rice industry consultant Datuk S. Jegathaeesan, yield performance in the Muda area does not reflect the billions of ringgit in investment.

Mada general manager Datuk Abdulk Rahman said the single biggest challenge to high yield is infrastructure or, more specifically, irrigation.

“Once the Muda area, the canal density at present is 18m/ha. If you were to compare this with northwest Selangor, Sekinchan has about 43m/ha — 3.5 times more than what we have,” explained Rahman.

What this translates to is more efficient water management. (In Japan, for example, the canal density is 100m/ha; in Taiwan 50-60m/ha.)

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Given a similar level of infrastructure with a focus on certain areas, Rahman believes it is not impossible to double the current yield.

In fact, several areas have already yielded positive results although they are scattered throughout the Muda area.

But even in areas where infrastructure is on a par with that of Selangor, yield has not been able to match that of Sekinchan on a consistent basis, said Jegathaeesan.

The success was at best, random and at worst, unsustainable. He attributes this shortfall to the “human variable”: over the years, farmers have been slow to embrace agriculture as a form of business and entrepreneurship.

Although the infrastructure in northwest Selangor is superior, he argues that technology is available if Kedah wants it: “It’s a question of technology adoption.”

And cost, of course. The average Sekinchan farmer spends RM4,000 on his crops, while his Kedah counterpart only one-fifth of that amount.

On the whole, Sekinchan farmers operate on larger holdings than farmers in Kedah.

“Small farmsize means they (farmers in Kedah) are not able to take advantage of the economies of scale,” said Professor M. Nazir Shamsudin, dean of the faculty of environmental studies at Universiti Putra Malaysia.

To make matters worse, young farmers have been moving away from rice to more lucrative crops, such as oil palm.

The good news, Rahman claimed, was that there was no idle land in the Muda area.

In the short run, Mada hopes to achieve “quick wins” from treating soil and increasing fertiliser usage among farmers. Irrigation works are already in the pipeline as part of its medium-term plan.

To ensure high yields, farmers are advised to adhere to Mada’s 10-point inspection (called “rice checks”), ranging from soil acidity to harvesting.

Mada is also working closely with the Malaysian Agricultural Research Development Institute to implement precision farming, a technology based on input needs, location and accurate measurement.

Under its Good Agricultural Practices, farmers will incorporate the latest technology into their agronomic practices.

At present, farmers have also switched from using the direct seeding method to mechanical transplanters.

However, all the technology available would be meaningless if farmers fail to modernise and adopt technology as part of farming practice.