

IACCB Quarterly Update

May 2019

Phase 2 is now fully underway and commercial results are looking promising. Results will be available from July 2019.

Commencing in February, Phase 2 (2019–2021) is building on IACCB Phase 1 (2016–2019), which focussed on project establishment with our 8 private sector partners and resolving the key technical challenges within our three cattle breeding models—SISKA, Open Grazing, and Smallholder / Cut and Carry. Phase 2 is focussing on conclusively determining the commercial viability of each model and then promoting the proven models to potential investors with the aim of **encouraging investment, innovation and expansion of the beef cattle breeding industry in Indonesia.**

The three cattle breeding models piloted with our private sector partners are:



**Cattle breeding in
oil palm plantations
(SISKA)**

Encouraging commercial results

Recent data suggests positive and sustainable commercial outcomes for both cattle breeding and palm productivity. Final results expected in **July 2019.**

[Read more page 8 >](#)



Open Grazing

Low production costs

Our Open Grazing model is showing good commercial prospects with low production costs and healthy offspring (weaner) growth in the open fields. Final commercial results will be available in **October 2019.**

[Read more page 9 >](#)



Smallholder Cut and Carry

High calving rates

The Smallholder Cut and Carry Model is now showing the benefits from more intensive management, most notably with the highest calving rates amongst all the models which provide a good basis for commercial viability. However, significant challenges around management of the farmer cooperatives and access to finance remain. Commercial results will be available in **September 2019.**

[Read more page 10 >](#)



Lihat video di <http://bit.do/IACCBP4S>

New partnership with Government Supported Training Centre

An exciting collaboration with P4S Karya Mandiri Desa Kubu (Pusat Pelatihan Pertanian dan Perdesaan Swadaya) in Central Kalimantan is underway with the delivery of twenty pregnant BX-heifers, of which more than 50% have already given birth.

P4S is an Indonesian Government supported Training Centre model that stimulates rural development through strengthening the capacity of member farmer groups and providing practical training for students in the agricultural sector. The two-year IACCB-supported pilot will test the commercial viability of breeding Brahman Cross in a cut and carry model. If commercially successful, the model will add to the knowledge-base of the Ministry of Agriculture and will ultimately support their goal of increasing the number of breeding cattle in Indonesia.

The P4S model has great scale up potential as the cut and carry model in Central Kalimantan can become an example of 'best practice' for the many P4S training centres in Indonesia, and be set up to produce accredited Cattle Managers and workers, which is currently a key constraint to Industry growth. In addition, the operating conditions under the P4S pilot are common throughout Indonesia – that is, a simple management style and access to cheap feed such as corn stalks and high protein feed like ampas tahu (soybean waste product).



SISKA Partners are Investing

Buana Karya Bakti (BKB) in South Kalimantan is expanding their cattle breeding business. BKB will procure 30 pregnant heifers in 2019 to bring the original herd back up to 300 cows. They plan to keep, after selection, most heifers born in year one. Within one year, BKB is planning to procure another 300 (pregnant) heifers, seeing their total herd numbers grow to 1,000 head. IACCB has provided animal health and pasture development support, including the development of 45ha of ex-mining land. The new productive pastures have increased access to cheap green fodder supply, whilst BKBs crude palm oil and palm kernel oil mills provide access to the necessary feed concentrate.

BKB owners and management see value in cattle breeding, their commitment to the business is strong, the plantation and the cattle ranch management has sound knowledge of the business drivers, herd condition is good and overall herd performance is excellent. Overall, a very positive picture.

More information <http://bit.do/farmingharmony> >

Our other SISKA Partners are also expanding with a focus on achieving better economies of scale in their cattle breeding businesses. Kalteng Adinipalma Lestari (KAL) is keeping all their cattle progeny, which will require significant investment in facilities. KAL is also expanding the grazing area in the plantation from 1,200 to 2,200ha to accommodate their expanding herd. They are also conducting a feedlot trial with 25 growers ensuring they can benefit from

the higher sales prices around Idul Adha. Bio Nusantara Teknologi is sourcing a business partner to expand their herd to 750, from the current 250 herd while also keeping the majority of female progeny. Superindo is moving their own breeding herd to the plantation area to increase their current herd population of 200 to about 800 in the coming years.

Overall, results to date suggest a strong and viable commercial future for the SISKa model.



Positive findings from Ganoderma Research

In 2018, the Agency for the Assessment and Application of Technology (BPPT) undertook preliminary research on the impact of cattle grazing under oil palm, specifically on soil fertility, oil palm productivity and the spread of Ganoderma. Their research showed that after a minimum of 15 grazing cycles, productivity of oil palms at one plantation had improved by 5 to 12%, which bodes very well for SISKa commercial viability.

Further good news was that in laboratory conditions Ganoderma was found not to spread in the presence of cow dung. Ganoderma spores were also killed by the acidic conditions in the rumen of cattle. These results indicate that Ganoderma is unlikely to be spread by cattle ingesting sporulating fruiting bodies, which was an ongoing concern of many in the palm oil sector.

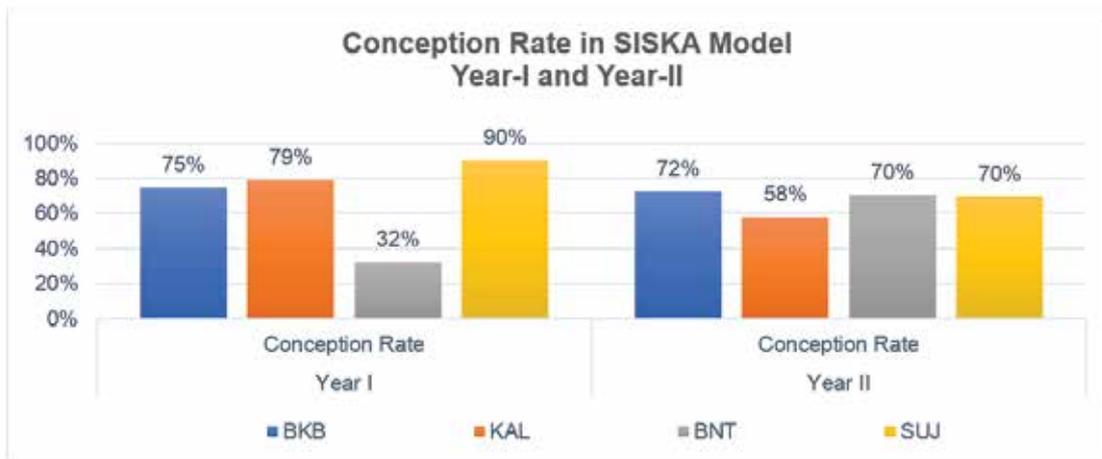


Fertility of Brahman Cross

There has been conjecture in some circles (small farmers and the Government of Indonesia) that Australian Brahman are not successful breeders in Indonesia. Indeed, many past programs that granted Australian Brahman heifers to smallholders have failed, evidenced by the fact that the cattle did not return to pregnancy after their first calf. This is very important for commercial viability, as low calving intervals indicate healthy and productive cattle, and are essential to herd growth.

The very good news is that within SISKA we have been able to achieve strong calving intervals averaging about 14 months, and 15 months for cut and carry models. It is too early to determine average calving intervals from the open grazing as it is still in its second cycle.

These SISKA calving results compare favourably with those found in Northern Australia (15-16 months) and against that experienced by local cattle in Indonesia which at best achieve 17 months with many above 20. Within government circles this news has been very positively received.



Cattle Breeding Model Updates



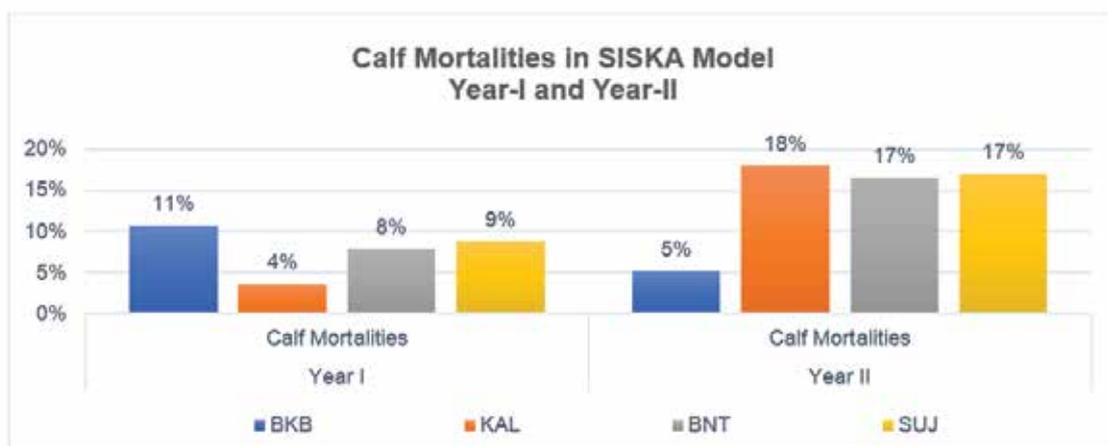
SISKA – Cattle breeding in oil palm plantations

All four SISKA-partners have successfully passed their Commercial Viability Assessments and finished their two-year implementation period. This provided IACCB with an opportunity to comprehensively analyse the performance and the commercial potential of integrating cattle in oil palm plantations.

SISKA is, as expected, proving to be a great success with a high level of performance, at low cost. Cows, weaners and growers under the palms are in good condition and are maintaining an excellent Body Condition Score (BCS).

Following initial attention to removing unpalatable plant species, the native pasture under the oil palms have become more productive with each grazing cycle. In combination with a small amount of supplementation from palm kernel cake, the pasture is sufficient to maintain cows in reasonable condition at low cost – around Rp6,000 per cow per day. Additional protein supplements are however required for lactating cows. This finding is common across all four SISKA partners even though they have different levels of integration of plantation and herd processes, and differing levels of management and financial capabilities.

We are now confident that other palm plantations could achieve similar results if they follow the IACCB tested SISKA Model.



Calf mortalities in the second year increased significantly in three out of four projects, which was directly linked to calving in the peak of the wet season.

Some of our partners, who now conduct controlled mating, are enjoying lower calf mortalities as calving now occurs outside of the peak wet season. Lower mortalities are also occurring due to separating highly pregnant cows from the herd for close supervision and protection. We will report again on calf mortalities towards the end of 2019 at the peak of the rainy season.



Open Grazing

The Open Grazing model is, as expected, proving to be a great success with the high level of performance at close to lowest cost.

IACCB has one partner (PT Cahava Abadi Petani - CAP) operating this model, which involves operating 'breedlots'—the grazing of cattle on improved pastures and forage crops combined with intensive breeding operations in cattle yards. This model has great potential as much of the land in East Indonesia is ideal for this system.

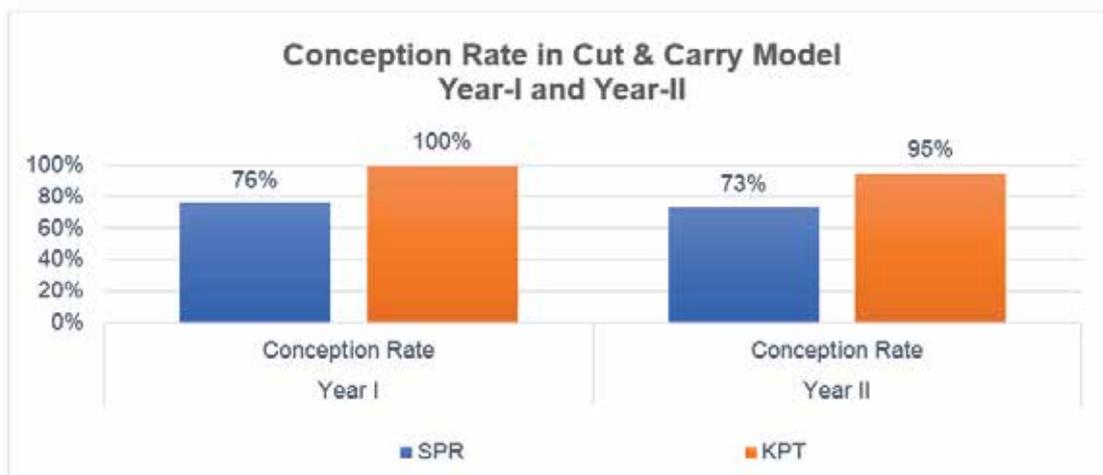
After one-and-a-half years grazing cattle on previously unproductive land, benefits have been realised in terms of reduction of weeds and optimizing land use. CAP has intensified planting of green fodder (king grass, corn and sorghum) and installed some permanent fencing around the cattle yard. Neighbouring farmers are now offering their land to be grazed by the cattle, which provides them with cheap weed control and additional fertilizer. This expanded grazing area resulted in improved BCSs after a drop during the 2018 dry season that continued until January 2019.



[Link for video http://bit.do/farmingharmony >](http://bit.do/farmingharmony)

Cut and carry

The two Smallholder Cut and Carry partners have sustained good cattle conception rates in their second year of operation. The significant variance between the two sites (see following graph) is predominantly linked to the better BCS-performance in Lampung (KPT) due to better feed rations for both green fodder quantity and quality, as well as availability of concentrate.



Limiting factors with the small-holder groups include low organisational strength and governance, and limited financial resources for establishing and maintaining breeding models, due to the fact that an expected cash-flow positive balance only occurs in the third or fourth year.

Events

Investment Roundtable on Red Meat and Cattle

IACCB took part in a Cattle Sector Roundtable in Makassar on 15 May attended by the Deputy South Sulawesi Governor and private sector stakeholders. The event was an opportunity to promote IACCB achievements and attract attention for replication of its models by the private sector and provincial or district governments. IACCB, as part of a DAWR/DFAT mission to South Sulawesi presented on 'Applied Research in Brahman Cross Breeding Models for Companies and Small Holders'. The Roundtable was a great opportunity for IACCB as the South Sulawesi Governor is committed and keen to expand the South Sulawesi cattle breeding industry, and has included plans to do so in the region's five-year development plan (RPJM). Discussions are now underway for the Red Meat and Cattle Partnership to support him in achieving his cattle breeding industry goals for South Sulawesi.

11th Asia Sustainable Oil Palm Summit – 2 July 2019

IACCB will present on 'Sustainable Practices on Integrating Cattle Breeding into Palm Oil Plantations' at the 11th Asia Sustainable Oil Palm Summit in Jakarta. The Summit brings together owners of oil palm plantations, palm oil producers, millers, traders as well as plantation consultants, palm oil research institutes, agricultural departments and researchers. The Summit provides an important opportunity to promote the preliminary findings of the SIS-KA-model after three years of implementation.

For more Information <http://bit.do/IACCBatoilpalmsummit> >

Upcoming launches

Cattle Breeding Manuals to be released soon

IACCB is in the process of finalising four technical manuals that cover the key functions required to plan for and manage a sustainable breeding herd in Indonesia. The manuals capture IACCB lessons learnt, are supported by robust data and guidance materials, and are written for investors who have little to no knowledge of cattle breeding in Indonesia. They will be available on-line and in hard copy (for smallholders) and will be a key program output that drives industry investment. They include:

1. Economics of cattle breeding in Indonesia
2. Herd management
3. Pasture management
4. Enterprise Monitoring and Evaluation

Enterprise financial model for cattle breeding sector in Indonesia to be released in the third quarter of 2019

IACCB has developed an enterprise level financial model to support cattle breeding investors in their decision making. The Excel-based model will be valuable for banks, financial institutions, donor agencies, Gol (Local, Provincial, Central), oil palm companies, feedlotter, breedlotter and smallholder groups. The model has considerable flexibility in its parameters, covering investment costs, the breeding system used, herd size and performance, operational and feed costs, and all production and marketing parameters. Default Data is also included based on IACCB's experience to date, allowing users to get started without possessing their own data for some or all parameters.

The spreadsheet uses sensitivity and scenario modelling to generate key financial indicators such as Net Present Value, Internal Rate of Return, Return on Investment, Pay Back Period and Breakeven Point. The spreadsheet will be available at no cost and downloadable from the IACCB website.

Herd Management Software will be launched in the third quarter of 2019

IACCB has supported the development of a robust cattle herd management software for Indonesian Cattle Breeders that support day-to-day cattle operations, specifically breeding, fattening, and feeding. The software has integrated features that manage productivity (e.g. pregnancy tests, weighing, calving) linked to a Radio-frequency identification (RFID) reader, financial (e.g. feed costs, cashflow), and operational data (e.g. shipments, procurement, feed intake and nutrition, concentrate formulation and production, animal health, cattle movement). The software also generates reports that could support cattle breeders to monitor and evaluate their business performance.

Please register to receive updates on this exciting initiative >

Keep an eye out for results in the next IACCB Quarterly Update in August 2019 that will focus on the commercial viability of the SSKA model.

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IACCB is managed by Coffey, a Tetra Tech company, and is funded by the Australian Department of Foreign Affairs and Trade.

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