

IACCB

Indonesia-Australia Commercial Cattle Breeding Program

Supporting Indonesia's commercial-scale beef cattle breeding industry



www.iaccbp.org

IACCB Quarterly Update

June 2020

In this edition of the 3-monthly IACCB Update we highlight the following.

Semi SISKAs - Semi Breedlot Model Shows Strong Commercial Potential

After 3 years of breeding Brahman Cross (BX) cattle, our partner, Superindo Utama Jaya (SUJ), is showing strong commercial potential. SUJ has a limited area of oil-palm plantation that can be used for cattle breeding but does not have access to cheap agricultural by-products suitable for cattle feed. Calf mortalities were also high in the pure SISKAs (palm oil grazing) model that SUJ implemented in the first and second year of their cattle breeding business. The clear solution was a semi-SISKAs/semi-breedlot model, where cattle graze for 50% of the year in the plantation and spend the other 50% in a breedlot. The breedlot allows for more intensive management of the cattle, particularly during calving periods, and has achieved significant reductions in calf mortalities. **Click here for more info.**

Achieving Suitable ADGs - an On-going Search for the Right Recipe

Strong weaner growth and their average daily gains (ADGs), after weaners lose access to their mother's milk, is key to a profitable business, with the 'cost-of-gain' the ultimate commercial indicator. IACCB and its partners have been assessing the impact of higher protein rations, derived from locally available feed, on the ADG of weaners and growers, and has generated some very interesting results. **Click here for more info.**

Optimal Herd Size for Commercial Viability

IACCB has produced three cattle breeding decision-making support tools that examine the financial returns from various production scenarios. This includes CALFIN a cow-calf financial modelling and planning tool. CALFIN estimates the cashflow, the internal rate of return (IRR) and net present value (NPV) of investments that guide management decisions. CALFIN is now being used to determine the impact of herd size on profitability in SISKAs systems, with important lessons learnt for current and future investors. **Click here for more info.**

In this Quarterly Update we also examine **the promotion of IACCB's breeding models** and **investor support tools** and **upcoming events** in the sector.



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

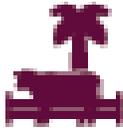
SISKA Partners are Expanding Their Cattle Breeding Enterprises and Diversifying into Growing and Fattening of Their Progeny

Our SISKAs partners are finalizing their scale-up plans using the IACCB developed CALFIN - cow-calf modelling and planning tool. PT Buana Karya Bhakti (BKB) in South Kalimantan and PT

Kalteng Andinipalma Lestari (KAL), both located in Central Kalimantan, plan to double their current herd numbers through selection of good female progeny and by acquiring new breeding bulls. Our semi-breedlot/semi-SISKA partner, SUJ, in Lampung Province, is also expanding its herd and investing in additional breedlot calving infrastructure.

[Read more below >](#)

[Click here for a new video on SISKA Brahman Cross Cattle Breeding >](#)



Semi SISKA - Semi Breedlot

Semi SISKA - Semi Breedlot - a Profitable Alternative

PT Superindo Utama Jaya (SUJ), in Lampung Province is expanding its cattle infrastructure, with another 160 calving pens, enabling the stockmen to separate highly pregnant cattle for calving. Heifers and calves remain in the pens for a couple of weeks to ensure low calf mortality rates.

[Read more below >](#)

[Click here for a new video on Semi SISKA - Semi Breedlot Brahman Cross Cattle Breeding >](#)



Open Grazing

Open-grazing Ranch Invests in Pasture Development

PT Cahaya Abadi Petani (PT CAP), our Open Grazing partner located in South Kalimantan, has 120ha of grazing area, and is now investing in 30 ha of improved pastures and legumes to minimize feeder production costs. Grasses include 23 ha of Mulatto grass and Paspalum ubon, 2 ha Brachiaria Humidicola and about 4 ha of king grass and shrub legumes Leucaena and Glyricidia.

[Read more below >](#)

[Click here for a new video on Open Grazing Brahman Cross Cattle Breeding >](#)



Smallholder Cut and Carry

Small-holder Commercial Sustainability Very Dependent on Integration with Current Farming System

Our small-holder partners, Koperasi Petani Ternak Maju Sejahtera (KPT) in South Lampung and Sentra Peternakan Rakyat Mega Jaya (SPR) in Bojonegoro have shown that integration of cattle breeding activities into their existing farming system is key to the success of the business model. Further constraints to commercial sustainability and growth include access to labour and other resources.

[Read more below >](#)

[Click here for a new video on Cut-and-Carry Brahman Cross Cattle Breeding >](#)

IACCB News



Calf/grower grazing in PT KAL's palm oil plantation in Central Kalimantan

SISKA Partners Scaling-up - A Sign of Commercial Success

Since October 2016, **PT Buana Karya Bhakti (BKB)** has integrated Brahman Cross (BX) cattle production with their oil-palm plantation business – a SISKA model. BKB started with 300 imported BX heifers and 30 bulls and has seen their herd and cattle breeding business grow from strength to strength. They are now planning to increase their breeders to 2,000 head to achieve better economies of scale and expand into fattening and processing (slaughtering) and the direct sale of prime-cut meat to local retail markets.

IACCB has supported the BKB Board of Directors to develop a business scale-up plan that details three expansion options, and their economic viability, as follows.

1. Organic growth - all heifers retained with the herd target being reached in 10 years
2. Organic growth and an additional 100 pregnant cows purchased in year 4 achieving the herd target in 8.5 years
3. Organic growth and an additional 300 pregnant cows purchasing in year 4 achieving the herd target in 6 years

CALFIN projected cashflow and other commercial indicators for each option, from 2020 to 2026, with assumptions based on actual BKB performance results over the past 3 years. Option 3, which requires a larger upfront investment, leads to better returns over the projected period.

IACCB's other SISKAs partner, **PT Kalteng Andini Lestari (KAL)** in Central Kalimantan, started with 250 imported BX heifers and 15 bulls in late 2016 / early 2017.

KAL plans to grow their herd to 900, including 400-450 breeders and focus on growing and fattening live male cattle. Challenges to achieve these expansion goals include financing, and potentially competition, as several companies in Central Kalimantan have already expanded their cattle operations.

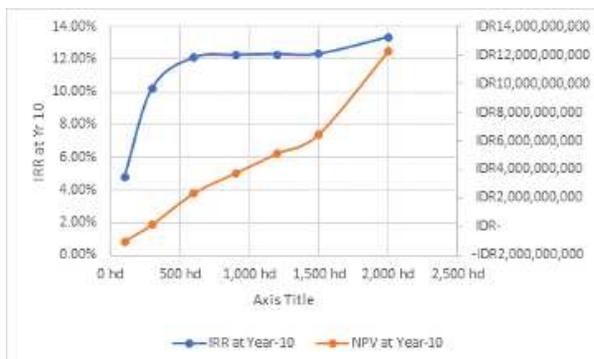
IACCB is supporting KAL overcome these challenges by developing a business scale-up plan for 2020 until 2026 using CALFIN and assumptions based on actual KAL performance results over the past 3 years. Two options were developed, as follows.

1. Herd Stability – with herd numbers not increasing from the current 500 head, including 200 productive heifers. This option does not require considerable additional investment, and may attain immediate self-sufficiency, but low returns.
2. Organic Growth – with the herd increasing to 400-450 productive cows in 2 to 3 years, requiring additional investment and additional grazing area, but providing a higher return, and achieving a total herd of 1,300 head by 2026.

Optimal Herd Size for Commercial Viability

The KAL and BKB projections show that small herds are unlikely to provide a sustainable economic return for commercial operations. This is supported by a broader analysis on optimal herd size for commercial viability.

The analysis indicated that the internal rate of return (IRR) rose sharply from 4% to 12%, as herd size increased from 100 to 600 breeders, and then remained flat until herd size approached 2,000 breeders and IRR reached 13%. Net present value (NPV) at year 10 increased in a linear fashion from 100 breeders to 1,500 breeders, but then increased sharply at 2,000 head.



The efficiency gains that are achieved by larger herds particularly impact NPV, a major factor to be considered by investors committing significant funds. This would not surprise Australian producers, where commercial herds are generally over 5,000 head.

Achieving Suitable ADGs - an On-going Search for the Right Recipe

Weaners need good quality feed when they lose access to their mother's milk. The cow's milk, rich in protein and energy, is very beneficial for the calf, but its production prevents the mother quickly falling pregnant again. For early weaning, at 3 to 4 months, the calf must be carefully prepared to accept solid feeds, otherwise there will be an extreme growth decline. The solid feed also needs to be digestible and have an adequate protein content.

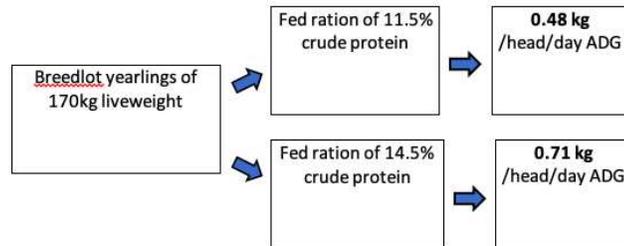
In breedlots it is common for weaners to be separated from their mothers and provided with standard feedlot feed. In a SISKAs system weaners are normally yarded for a week or two before being moved into a

grass paddock. Both these strategies can be more successful and optimum growth rates achieved if the calves are provided with a high protein (14 to 15%) supplement (creep-feed) while still with the mother.

The selection of the protein source will differ for each location and depend on the base ration and the available supplement options. When properly managed, the provision of additional protein can greatly increase overall productivity, at a relatively low cost for each kilogram of liveweight gained, as outlined below.

Smallholder breedlot cooperative double their investment:

In Lampung, a group of smallholder farmers breeding BX cattle in breedlots were feeding rations that were relatively low in crude protein – around 11.5%. Yearlings of 170 kg liveweight were growing at around 0.48kg per head per day – a reasonable growth rate, but not outstanding. By adding 0.65kg/head/day of soybean meal (SBM) to the ration, at a cost of IDR4,900 per head per day, the crude protein concentration was increased to 14.5% and growth rates increased to 0.71kg per head per day.



Comparing the two diets, an additional increase of 0.23kg per head was achieved compared to the original feed provided. Given that in Lampung, finished cattle sell for around IDR45,000 per kg liveweight, an increase of 0.23kg is valued at IDR 10,350 which is double the investment of providing the SBM which costed the smallholders only IDR4,900. A good management decision improving increased profit.

[Click here for more information on ruminant nutrition in IACCB's Cattle Breeding Manual.](#)

Cattle Breeding Model Updates



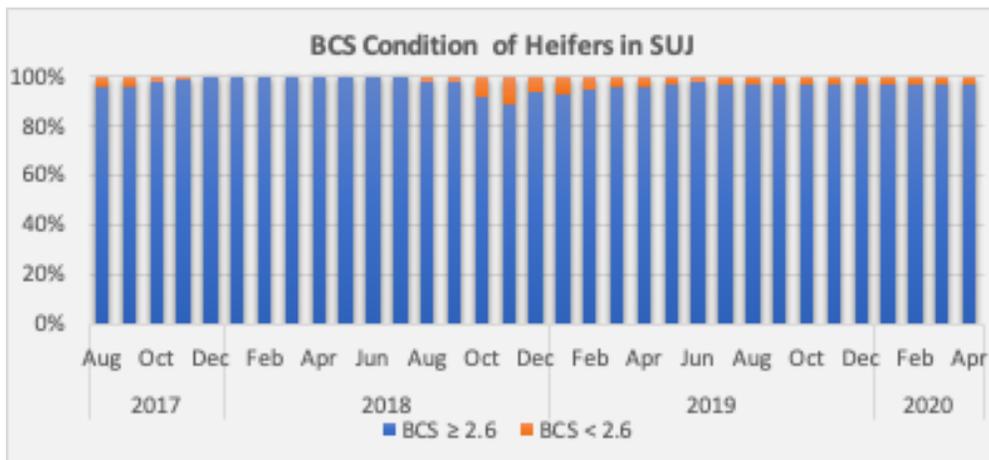
Calves and Their Mothers at PT SUJ's New Breedlot, Lampung

Breeding Model in the Spotlight: Semi Siska - Semi Breedlot

Semi Siska – Semi Breedlot – a profitable alternative when oil-palm plantation area is limited and cheap agricultural by-products abundant

Our semi-breedlot/semi-Siska partner, PT Superindo Utama Jaya (SUJ), in Lampung Province is expanding its cattle infrastructure, with another 160 calving pens, enabling the stockmen to separate highly pregnant cattle for calving. Heifers and calves remain in the pens for a couple of weeks to ensure low calf mortality rates.

By diligently managing the herd and supplying necessary supplements SUJ is keeping both lactating and empty cattle into good condition, with 95% of the cattle continuously achieving a BCS of 2.6 or above.



The good condition of the herd is also reflected in an excellent average calving interval for the whole herd of less than 15 months.

SUJ management consulted IACCB to project their economic returns using the CALFIN modelling tool. Three scaling-up options, that considered their plantations limited carrying capacity, were presented to SUJ management.

1. Stable growth - no purchase of additional cows and maintaining a total herd of around 400 head.
2. Organic growth- purchasing and integrating 500 local cows in 2019/2020 into total herd maintained at 700 head.
3. Aggressive growth - purchasing and integrating 500 local cows in 2019/2020 and 300 in 2021 into total herd maintained at 1000 head.

For all options BX bulls would be acquired to ensure a healthy cow/bull ratio (1/20) for the expanding herd.

CALFIN modeling showed that Option 2 was the most promising, with a positive cashflow from 2021 onwards and an IRR slightly above 10%.

IACCB partner experience has shown that enterprises with a limited grazing area, such as SUJ, need to continuously and carefully monitor their carrying capacity, and required additional feed, if they are to maintain cattle in an optimal condition.



Productivity Data Recording at PT BKB's plantation, South Kalimantan

SISKA - Partners Updates

PT Buana Karya Bhakti (BKB), in **South Kalimantan**, has now established its SISKA Training Center, and is preparing to provide long-distance learning (on-line training) to several universities and the local government of Kalimantan Tengah, Kalimantan Timur, Papua and Sumatera Utara who requested the support. IACCB has supported BKB to produce an educational video that accompanies these commercial training activities.

PT Kalteng Andinipalma Lestari (KAL), in Central Kalimantan, is fattening part of the male progeny for the lucrative Qurban market which provides for premium prices.

PT Superindo Utama Jaya (SUJ) is diversifying their business to fattening, by feeding dried palm oil sludge, an exciting new innovation. A comparative trial showed that an ADG of 1.2kg/d can be reached

feeding 25% dry solids, at a daily feed cost of only IDR18,000, compared to IDR25,000 with other agricultural by-products.



Cattle Grazing Open Pasture in PT CAP in South Kalimantan

Open Grazing - Partner Updates

Badan Usaha Milik Petani PT Cahaya Abadi Petani (PT CAP) in South Kalimantan, has recently found a niche Qurban market for several of its young Brahman Cross cattle and sold 8 male feeder cattle averaging 230 kg receiving IDR 116,000,000 or an average of IDR 63,000/kg liveweight. The age and the weight of the feeders was attractive to the buyer given the approaching Qurban market provides premium prices.



Corn Farmer who Collaborates with P4S Karya Mandiri in Central Kalimantan

Cut and Carry Small-holders - Partner Updates

Koperasi Petani Ternak Maju Sejahtera (KPT) in South Lampung, has achieved two important milestones. KPT has successfully maintaining 20 pregnant heifers, from the Juang Jaya feedlot, up to weaning, and are now selecting a new batch of 30 heifers. As a result, KPT has gained P4S accreditation. P4S are independent, government validated and supported training centers for agriculture and village self-development. **[Read here for Mr Suhadi's profile, the head of KPT, on Tribun Lampung, local newspaper in Lampung.](#)**

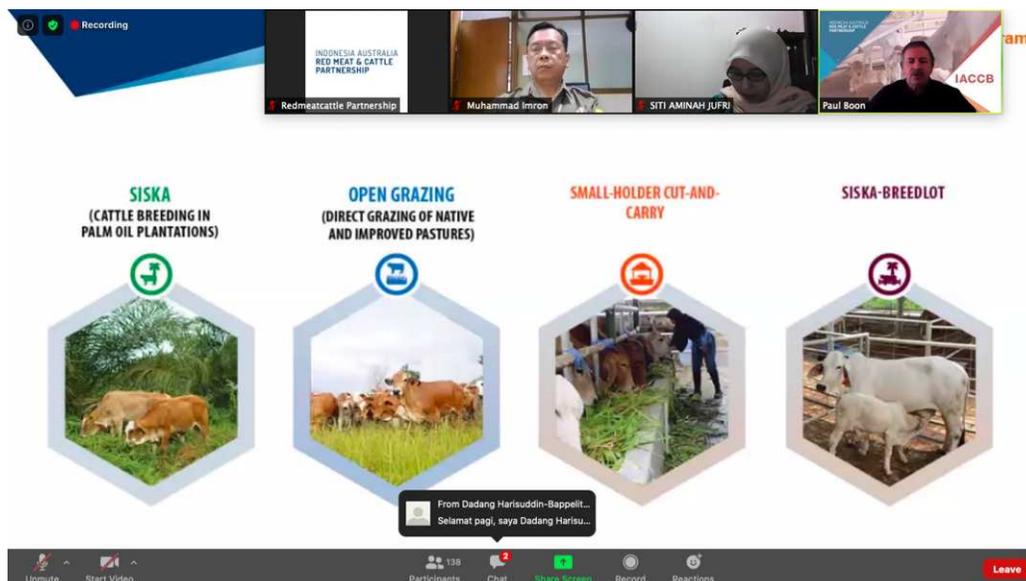
Sentra Peternakan Rakyat Mega Jaya in Bojonegoro (SPR) in East Java. SPR-members are running mixed traditional farms and consequently face a number of unique challenges over the year. In the dry season they experience a shortage of green fodder and in the rainy season a shortage of labour. Given these limitations, SPR has decided to reduce their herd numbers over the next 3 months to a more manageable size for the cooperative.

P4S Karya Mandiri in Central Kalimantan is performing well in its second year of operations. Collaboration with the surrounding corn farmers provides abundant sweet maize stover which has kept the cows in an excellent condition and forms a basic diet for growers. Within only 15 months half the productive heifers have given birth for the second time. Cashflow is supported through the sale of compost, which is averaging above 15 ton/month.

Promotion to Industry and Government

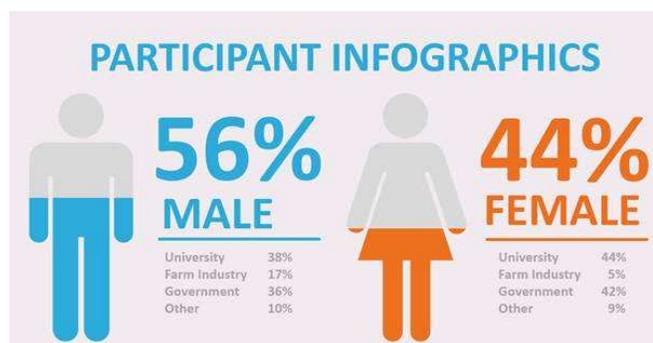
IACCB is actively supporting the Indonesian cattle breeding industry in its effort to solve its main growth challenges, namely information dissemination and technical guidance, skills shortages, research, and enabling policy

Information Dissemination and Promotional Activities



Discussion on Commercial Cattle Breeding Models in Indonesia - co-hosted with Indonesia's Ministry of Agriculture (18 June 2020)

The COVID-19 pandemic has required IACCB to adapt its promotion activities, by interacting with industry, government officials and other interested parties through a series of Webinars, including co-hosting with the Ministry of Agriculture. The Webinars have allowed IACCB to reach a very wide group of interested parties all over Indonesia with more than 1500 people (44% were female) attending the 5 Webinars held to date. Conventional promotional avenues, such as conferences, would reach a much less diverse audience, and are much less costs effective.



Materials and coverage of the webinars can be downloaded on the links provided below.

- **Cattle-oil Palm Integration** – 156 male and 84 female participants (16 April 2020). [Click here for the materials.](#)
- **Role of Finance Institutions in Financing the Cattle Breeding Sector during and after Covid-19** – 192 male and 121 female participants (14 May 2020). [Click here for the materials.](#)
- **Commercial Cattle Breeding Potential in Indonesia** – 249 male and 229 female participants (4 June 2020). [Click here for more information, materials,](#) and the [video documentation on Youtube.](#)
- **Commercial Cattle Breeding Models in Indonesia** – co-hosted with the Ministry of Agriculture and attended by 164 male and 128 female participants mainly from the Breeding and Livestock Directorate and representatives of Provincial Livestock and Animal Health Agencies (18 June 2020). [Click here for the materials.](#)
- **Innovations in Pasture Development - Producing Cheap and High-Quality Cattle Feed** – 149 Male and 144 Female (25 June 2020). [Click here for the materials.](#)

Technical Guidance

CALFIN, CALPROS and CALPROF and our Cattle Breeding Manual are available, free of charge, from the IACCB website - www.iaccbp.org. To date about 250 people have accessed the manual (hard and soft copies) and there have been 130 downloads of CALFIN, CALPROS and CALPROF.

INDONESIA AUSTRALIA
RED MEAT & CATTLE
PARTNERSHIP

Australian Government BKPM

IACCB

Investor Tools for Commercial Cattle Breeding Business

CALFIN
Cattle Operations Financial Model

A financial spreadsheet that helps interested cattle breeding investors with the planning and financial modelling of several alternative investment strategies.

CALPROS
Cattle Operations Monitoring Spreadsheet

A monitoring spreadsheet specifically developed to support small and medium-sized cattle breeding enterprises to monitor the performance of their herd.

CALPROF
Cattle Operations Software

An operations software (combined with feedlot and feed mill modules) that assists established cattle breeding enterprises to monitor the performance of their herd.

Commercial Cattle Breeding Manual includes modules on financial aspects, herd management, pasture development, as well as monitoring and evaluation

Download the tools on <http://iaccbp.org/investor-tools> or scan this QR code

www.redmeatcattlepartnership.org [f](#) [t](#) [in](#) [@Iaredmeatcattle](#) [@ia.redmeatcattle](#) www.iaccbp.org

To access/ download the tools CALFIN, CALPROS, and CALPROF please click [here](#).

To access the Cattle Breeding Manual in English or Bahasa Indonesia, please click [here](#)

Skills Development



Gita Pertiwi, the Non-profit Management Consultancy Company, Supporting Organizational Strengthening of IACCB Smallholder Partners

The COVID-19 pandemic has required IACCB deliver technical support to its partners on-line through webinars, Whatsapp video or zoom meetings. To maximize the take up of IACCB findings and tools after the program closure in February 2021, we are now actively working with our partners to establish industry led training and curriculum. This includes smallholder technical support by Gita Pertiwi – an Indonesian small-and-medium enterprise management consulting foundation, with specific interest in agriculture and livestock. Gita Pertiwi, is currently supporting curriculum development with two of our smallholder partners - KPT in Lampung and P4S Karya Mandiri in Central Kalimantan, both with P4S status (government accredited and supported training centers).



IACCB has produced four dual language videos available on **Youtube** (links see above) and the IACCB and Partnership websites. The videos together with the manual and tools are currently being used by government and private agencies for cattle breeding educational activities.

Keep a look out in the next Quarterly Update for the link to the SISKA video currently being developed for BKB and to be used in their “SISKA Center of Excellence” in South Kalimantan, which offers commercial training packages.

Upcoming Events

Planned events to promote the red meat and cattle sector and cattle breeding enterprise development have been postponed due to the COVID-19 pandemic. Several organizations have adapted to the challenges posed and are offering a variety of webinars in support of the sector.

Keep an eye out for the **September 2020 IACCB Quarterly Update.**

IACCB is managed by Coffey, a Tetra Tech company, as a project within the Indonesia-Australia Partnership on Food Security in Red Meat and Cattle Sector, funded by the Australian

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