

Participatory extension approaches IndoDairy



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March 2022

Introduction

- Extension activities were delivered during 2018-2020
- Lead by Vyta Hanifah, Zita Ritchie and Dr Brad Granzin and delivered in collaboration with village level researchers (VLRs) and milk cooperatives (KUDs)

IndoDairy Village Level Researchers



Research Objectives

Objective 3 of the IndoDairy project

Develop, pilot and evaluate **innovative extension approaches** in West Java that improve on-farm profitability of smallholder farmers.

Key activities

- Co-design an integrated extension program
- Pilot and evaluate dissemination programs with researchers, extension staff and dairy service providers in West Java

Extension approaches

1. Service provider training



2. Discussion groups



3. Focus Farm



Discussion groups and Focus Farms led by the Village Level Researchers (VLRs)

Key results and Discussion

1. Service Provider training

- Built a network of skilled dairy advisors
- Building capacity of VLRs was an integral part of success
- Improved capacity of the milk cooperative staff has resulted in wider dissemination of technical information and training

4 workshops held with approx 20-25 service providers (in each workshop) were trained

intensively in:

Dairy cow nutrition Extension methods

★ Reproduction and farm business★ Milk quality and hygiene

- Additional fifth workshop North Sumatra Dairy Service Provider covering all topics
- Average change in knowledge from some workshops from 2.6 in pre-test (fair knowledge) to 4.00 (good knowledge) in post-test, out of 5 scale (1-5)

Key results and Discussion

2. Discussion Groups (DGs)

- In West Java, 13 DGs were delivered over 10 months each group had 8 meetings (including planning and review meeting) involving a total of 184 participating farmers
- This included a Women's Discussion Group (WDG) to increase women's participation in extension activities.
- Farmer knowledge improved across the four technical areas (feeding and nutrition, calf management, business and milk quality)
- Changes in knowledge and adoption of practices were observed



Topics included:

- Feed and nutrition (N)
- Milk quality (MQ)
- Animal health (AH)
- Calf management (CM)
- Farm business management (FBM)
- Reproduction (R)
- Waste management (WM)

Knowledge Level of knowledge (self-assessment): Correct answer (quiz): +30% +54%* 6. Target 1. Water concentrate requirements of Feed and nutrition (n = 165)+25%* 582 88% consumption at dairy cattle weaning Reproduction and husbandry (n = 110) +28%* +66%* 🔟 +14%* 2. 16% CP in 7. Target age of concentrate to lacta g₃₂ 97% first calving 862 100% +18%* 📥 Calf Management (n = 72)cows Milk quality and hygiene (n = 151) +25%* +17%* া +29%* 8. Teat dipping 3. Feed sources with iodine with high CP% 712 100% 122 29% prevents mastitis content Farm business management (n = 147) +19%* +48%* 👉 +22%* Animal health (n = 108)4. Recommended 9. Practices which +19%* quantity of improve milk 342 56% 502 98% colostrum to feed quality and hygiene calves Waste management (n = 89)+16%* 2 3 +5%* Knowledge increased in all areas Some Very 5. Litres of milk None 452 50% (self assessment and knowledge good to fed to calves

per day

Notes:

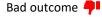
- n = 184 (unless otherwise indicated)
- % changes (positive/negative) are comparisons between base- and endline.

■ Before ■ After

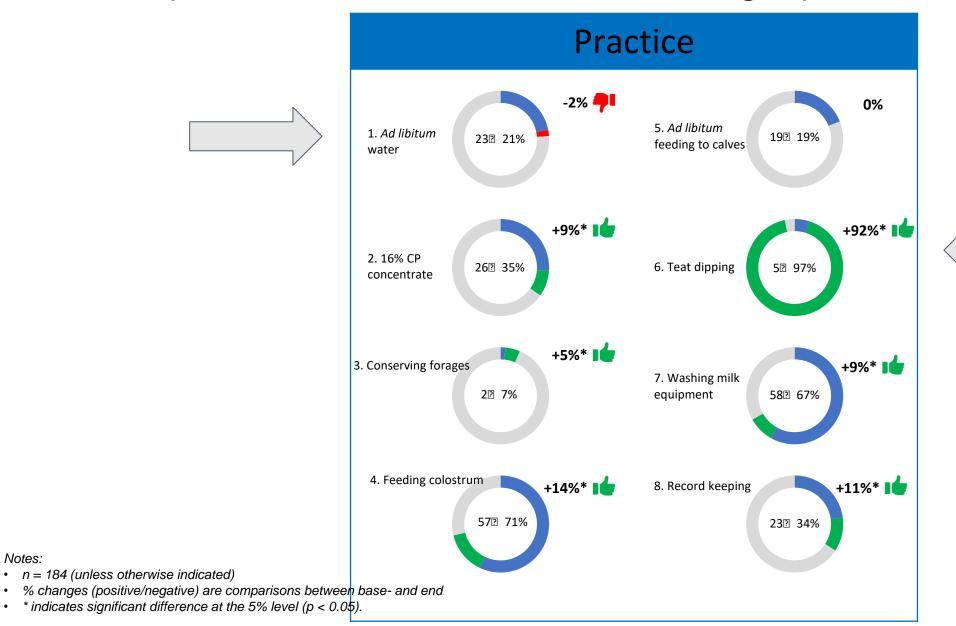
• * indicates significant difference at the 5% level (p < 0.05).



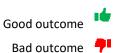
test)



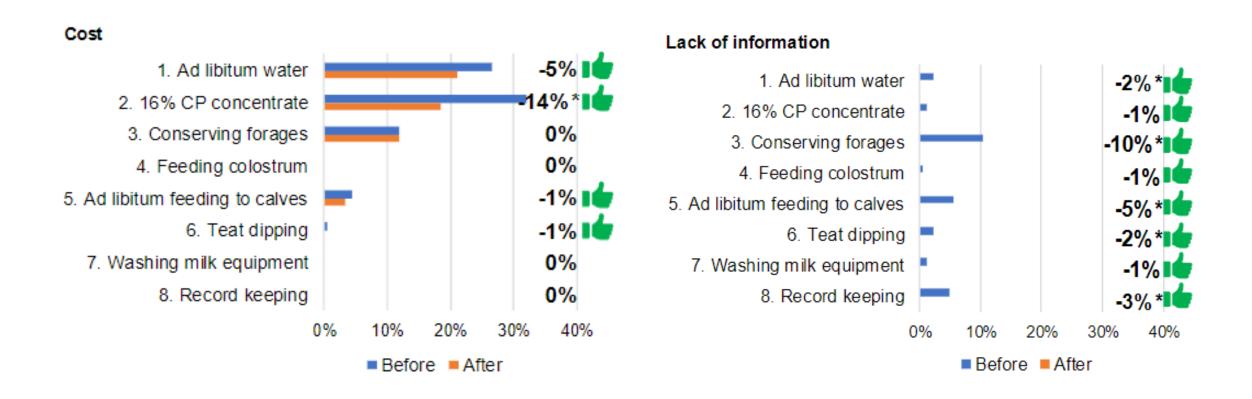
Adoption increased for six out of the eight practices measured



Notes:



Some barriers to adoption surveyed



Cost a barrier for only a few technologies, but seen less of barrier after the training (farmers understand more of the value)

Lack of information was not a barrier after the implementation of the DG's

Case study - discussion group impact

In Garut, after seeing the improvement in milk quality of farmers in the Discussion Groups, KPGS Cikajang took the initiative to provide iodine and teat dipping cups to all their members (approx. 1,500 farmers).

Key results and Discussion

Focus farms (FF)

- Two FFs were trialled as a new extension method in Indonesia, a shift away from the traditional demonstration farm approach.
- The approach used a real case study farmer, working toward their individual goals and priorities.
- FF had 6 meetings over 10 months, involving a total 10 farmers and 7 advisors
- For knowledge, 81% of the participants said they gained new knowledge and 19% partially gained new knowledge
- A support farmer, started feeding molasses and soybean on his farm after seeing the benefit through the FF. He said, 'Feeding molasses and soybean meal showed a great result as milk production increased 1-2 litre/cow/day'.







Conclusion

- Capacity building occurred across the dairy service sector in West Java and North Sumatra under Objective 3.
- A large success was due to the investment in capacity of the five village level researchers (VLRs) – recommendation for future investment in VLRs
- Changes in farm practices have been observed through the implementation of innovative extension approaches including DGs and FFs
- Future opportunity to scale out this extension model

Thank You!

http://www.adelaide.edu.au/global-food https://www.indodairy.net/













