

Improving broiler farm productivity in West Java

Achieving sustainability and profitability

The demand for poultry meat is rapidly increasing. This market demand provides new opportunities for broiler farmers, but poses also challenges. Prices of live birds, DOC, feed and other inputs can fluctuate a lot and broiler farms do not always make a profit. Broiler farms will have to adopt better practices and invest in their facilities to realise higher gross margins and increase higher production levels. Indonesian and Dutch experts work together to realise a healthy growth of the broiler farming sector in West Java.

DIFS-Live is a cooperation between the Indonesian Ministry of Agriculture and the Embassy of the Netherlands in Jakarta. Together they promote food security and private sector development in the Indonesian livestock sectors. The project focusses on the poultry and dairy sectors in West Java. Both sectors face challenges in terms of meeting the growing demand of urban consumers in an efficient and sustainable way.

DIFS Live is implemented by Wageningen University & Research together with public and private stakeholders in the supply chain. Together they build viable models for the production and supply of affordable, nutritious and safe chicken and dairy products. DIFS Live has 4 major areas of intervention: (a) promoting consumer acceptance of cooled chicken meat; (b) improving poultry slaughter practices and cool chain management; (c) raising productivity and income of broiler farms; (d) improving the dairy feeding practices.

Why increasing productivity levels?

Most chicken meat in Indonesia is produced by small scale broiler farms (5,000 – 25,000 bird places) in open houses. To meet the increasing demand from urban consumers, the broiler production sector is expected to double its output over the next five years. This can be done by doubling the number of chicken or, better, by optimising the current productivity levels. Improved productivity leads to higher

levels of production and turnover. It gives broiler farmers opportunities to increase their net income, ensures a better use of the available resources and improves the animal welfare.



Figure 1: example of a traditional open broiler house

What are the challenges?

Using open houses for broilers is a low cost solution that is suitable only for the current 'low input, low output' broiler farming systems. Open houses, however, give broiler farmers serious problems due to the low biosecurity levels and the limited opportunities to control temperatures. Another problem is the poor quality of drinking water in many broiler farms. Together this leads to increased disease pressure, high levels of antibiotics and increasing heat stress in older animals. The growth of birds slows down and the mortality rate in the traditional broiler farms is high. The genetic potential of the broilers (growth, efficiency, and uniformity) is therefore not fully used and much can be improved with a combined investment in improved broiler houses and drinking water facilities and better broiler farm management practices.

What does DIFS-Live contribute?

The main objective of this component of DIFS Live is to facilitate a process of change towards higher productivity and the sustainable poultry meat production at the medium and smaller scale broiler farm level. This means that the broiler farmers' income and animal health and welfare will increase and the environmental burden will reduce.



Figure 2: Example of a closed broiler house

Experts of DIFS Live implement a pilot programme at ten pilot farms in the Bandung, Bekasi and Bogor areas. At these pilot farms they introduce better drinking water facilities and management practices. Tests are done with different closed housing models and improved ventilation methods. These pilots are implemented together with the management staff of the broiler farms. The farm managers monitor themselves the effects of the different improvements. Experts of DIFS Live provide training and advise.

At Bandung DIFS Live and PT Medion build two improved broiler houses which will be used for training and demonstration purposes. These will be prototypes for medium and small scale broiler farms. As table 1 below shows the benefits of closed housing can be very significant. The Dutch company Sommen develops the software and climate control units to be used for improved monitoring and management of the broiler houses.

Demonstration and open days will be held at the pilot farms and at the Bandung broiler demonstration site. Vocational livestock

schools in West Java will be assisted to include the lessons from the broiler farm improvements in their curriculum.

Table 1: Comparing open and closed broiler houses

	Open house	Closed house	Difference
Mortality rate (%)	5.0	2.0	-60%
Body weight 30 days (kg)	1.5	2.0	+33%
Feed conversion (kg feed/kg growth)	1.6	1.4	-13%
Production cycles/year	6	7	+17%
Stocking density (# birds/m ²)	8	15	+88%
Revenue per flock (million IDR)	350	480	+37%
ROI (years)		2.6	

Partners

The DIFS Live broiler farm improvements are designed and coordinated by experts of Wageningen Livestock Research in close cooperation with:

- PT Medion Farma Jaya in Bandung, Indonesia
- SOMMEN automation & electronics in Ulicoten, the Netherlands.



Interested to find out more?

Check the website www.difslive.com for more background information on the Indonesian-Dutch food security programme and the broiler farming improvements developed by DIFS Live.

For specific questions on broiler farming you can send an e-mail to Dr Rick van Emous, at Wageningen, the Netherlands (rick.vanemous@wur.nl) or contact our national coordinator Dr Rajali (+62 (0) 812 90968134; Email: rajalivet09@gmail.com).