

Webinar: circular business solutions for poultry in West Africa (EN and FR)

Notes with regard to Q&A (questions and answers) following presentation by Peace Quadt. See powerpoint and recording of the presentation via [this link](#).

The webinar on circular solutions for poultry in West Africa was co-organised by NFP and NABC. SuperLingua provided simultaneous translation. In total 132 professionals signed up, representing a good mix of age, gender and professional background. Most participants are from Cote d'Ivoire, other parts of (West) Africa and the Netherlands.

A word of welcome was provided by the new agricultural councillor at the NL embassy in Abidjan, Marleen van Ruijven who expressed a continued priority with circular economy solutions and Netherlands-Ivorian partnerships for the sustainable development of the poultry sector in Cote d'Ivoire.

Q&A on cassava waste as poultry feed.

Cassava can replace maize in poultry feed, up to 20% for broilers and up to 30% for layers. The levels of replacement are different for other livestock, including fish, depending on their digestive tract. One can read more about this in research done by ILRI in Nigeria, see the reference in the last slide.

Cassava peels are widely available in Cote d'Ivoire and already used to feed ruminants. The new element here is to partially replace maize in feed recipes. As cost of transport is important for any business, feed millers need to map out the nearby locations where cassava peels are concentrated.

Cassava peels or mash are a partial solution for poultry feed. It requires standard washing and drying to reduce the level of cyanide, similar to cassava processing for garri (human consumption). For cassava mash, the process involves washing, grinding, dewatering / fermentation and drying. The dewatering reduces the cyanide load, similar to garri. Not all cassava varieties are equally toxic and research is ongoing. See the ILRI document mentioned on the last slide of the presentation.

Info on starch and fibre content of cassava waste is mentioned on p10-11 of the full study. Info related to shelf life of cassava mash is in the ILRI Nigeria study (see reference).

It is important to mention that peeling by hand (with a knife) yields a better nutrient quality in the waste, compared to industrial processing. An industrial processor from Mozambique informed that most of their waste consists of fibres.

Q&A on pellets from poultry manure

Comparing poultry manure and compost from cassava waste, the manure is richer in NPK. In this business viability study, Peace looked at cassava peels as an ingredient for poultry feed, either as dried peels or mash.

One challenge is reducing the level of antibiotics in poultry manure in both broiler and layer manure. The presentation refers to a heat treatment of poultry manure. This sterilization (heating for one hour at 70 degrees) is required in Europe and may be repeated 3-4 times to reduce antibiotic levels. Ongoing research at the university of FHB is looking into bacterial agents to eliminate antibiotics from manure.

The workshop with doctor Josje Hakker (Aeres Barneveld) discussed preventive measures (bio-security programmes in the Netherlands) rather than routine application. [Click here for report](#).

The manure from commercial broilers and from commercial layers are different in their NPK profiles. Mixing both types of manure is a way to obtain an uniform product for the market.

General / conclusion

The study also looked into feeding waste streams to BSF, but concluded a low business viability.

This study by NFP used cases from Cote d'Ivoire. The first solution Cassava may apply to other countries that have a sizeable production of cassava. The second solution for poultry Manure may apply more widely to contexts where conventional fertilizer are expensive and poultry manure is under-utilized.

An overview of similar poultry initiatives and organizations in Central Africa (or other countries) may be obtained via NABC/DAPP. Please write to dries.thijssen@nabc.nl

The findings in this study were first presented in June at the VIV Europe and led to ongoing follow-up conversations. NFP is interested to support a partnership to scale these circular solutions. Questions can be directed to <https://www.linkedin.com/in/peace-quadt-004536b/>
Questions in french to wgoris@nlfoodpartnership.com

Full study:

<https://www.nfpconnects.com/insights/circular-solutions-for-the-poultry-sector-in-cote-divoire-analysing-three-business-cases>