

On-farm meat processing of beef with canned meat production on Farm Krumhuk, Namibia

Bachelorarbeit im FG Agrartechnik

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Zusammenfassung

The present study addresses the adaptation and installation of the first small-scale biodynamic meat processing and canning concept on Farm Krumhuk. Looking at Namibian and international food hygiene and processing regulations, designing the facilities and discussing practical solutions for production processes and quality management are the objectives of this study. This concept of small-scale canned meat production is not common in Namibia and doesn't exist in organic or biodynamic quality.

Expert interviews were conducted with seven experts with different backgrounds during a field trip to Namibia in 2015. Facilities were planned trying to incorporate an existing slaughterhouse, keeping plans simple and the dimension of financial investment relatively small. The floor-plan was designed by the author in cooperation with the farm management and German experts from the Bäuerliche Erzeugergemeinschaft Schwäbisch-Hall (BESH). Site visits were conducted to three meat can manufacturing companies of different scale.

The regulations affecting the facilities and production processes were identified. On a national level, the facilities must be registered at the Meat Board of Namibia. Currently the facilities on Farm Krumhuk are registered as a 'Class C' abattoir (production only for local market). Registration at the Meat Board requires compliance with their abattoir regulations and a certificate of fitness from the Health Services Division of the Municipality of Windhoek. In order to gain the certificate of fitness, the facilities must comply with the Health Regulations and Public Health Act. This set of regulations was applied to the facility plans. Further regulations that need to be applied are those for organic certification. These comprise the Namibian Organic Association (NOA) regulations as well as the EU regulations for organic agriculture. The certifying company will also certify according to the regulations of the Demeter Association, because Farm Krumhuk is aiming for bio-dynamic certification. If export of products is intended, IFS certification may be required, depending on the importing company.

The compliance of the planned facilities and production processes with the regulations were analysed. The facilities are in compliance with the regulations apart from few exceptions like meat rail height and waste handling. Most ingredients are available in organic quality (once Farm Krumhuk is certified) and have the potential to be processed into high quality products.

The supply of organic spices, however, still has to be addressed. The empty cans will be supplied by the South African company Nampak DivFood. Developed quality control strategies must be applied at all sections of production processes. Main aspects here are training of personnel in hygiene and documentation.

There is a market potential on the local market and on the South African market. The supply of international markets, however is bound to the registration as a 'Class A' abattoir by the Meat Board and may require further amendments of the buildings. Once production has started and experience has been acquired, trainings to other farmers and interested people should be offered in order to make the concept of organic small-scale meat processing and canning known.