Assessment of European breeding programmes from different sustainability aspects

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Within the EU-project Q-PorkChains, pig production systems in four European countries (one conventional and two differentiated systems per country) were evaluated. Four types of genetic material linked to the production systems were studied: conventional breeds in conventional systems, traditional local breeds in traditional small-scale systems, breeds from conventional breeding programmes in alternative systems and specific breeds from own breeding programmes in alternative large scale systems. A checklist by Woolliams *et al.* was used to assess the breeding programmes. Information from 10 breeding organisations was collected through interviews or questionnaires. Farmers from each system also answered questions on e.g. preferred selection traits. The assessment is summarized in four dimensions. The 1st dimension describes whether the market for the product is well defined (including questions on sensitivity to external factors) and whether the breeding goal reflects the production system and the farmers' demands. The 2nd dimension describes selection procedures and genetic change in important traits for the system. We assessed whether the recording was sufficient to achieve the breeding goal and how the different traits were balanced within this goal. The 3rd dimension deals with genetic variation, both within breed and within the pig species. This dimension includes questions on effective population size and different stakeholders' interests in genetic diversity. The 4th dimension describes the functioning of the breeding organisation. Communication and transparency as well as available economic, technical and human resources belong to this dimension. Strong and weak points of different production systems with regard to breeding and genetic diversity will be presented.

Status and prospects for smallholder milk production: a global perspective

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It is estimated that 12-14% of the world population, or 750-900 million people, live on dairy farms or within dairy farming households. The worlds mean dairy herd size is around 2-3 cows. Against this background, the paper set out to assess whether: small-scale milk production can contribute to reducing poverty and will be able to compete with large-scale, capital-intensive 'high-tech' dairy farming systems, such as those in the USA and other developed countries. The analysis is based on the of the IFCN methodology. The IFCN – International Farm Comparison Network is a global research network attracting and connecting dairy researchers from over 80 countries. www.ifcndairy.org. The IFCN methodology is based on three elements: a) the TIPI-CAL model, the method of typical farm types selection and c) the method of collecting and validating farm data. The various analyses indicate that: small-scale milk production not only improves the food security of milk-producing households but also helps to create numerous employment opportunities throughout the entire dairy chain. As such, dairy development may serve as a powerful tool for reducing poverty and creating wealth in rural areas; and as small-scale milk producers incur low production costs, if well organized, they should be able to compete with large-scale, capital-intensive 'high-tech' dairy farming systems in developed countries. Given the ability of smallholder milk producers to participate in the dairy market in a profitable manner depends not only on their own competitiveness, mainly determined by their production costs, but also on the efficiency of the dairy chains to which they belong. Therefore, recommendations for smallholder dairy development must perforce include strategies to develop and increase competitiveness in all segments of the dairy chain.