manure/ha·a equivalent to 1 livestock unit/ha). However, in the course of solid manure production, higher NH_3 losses occur. Increasing the livestock intensity to 3 livestock units/ha - which is problematic because of a very high straw demand and the resulting type of management or crop sequence - would however raise problems similar to slurry farming.

b) The question if so-called "cold fermentation" of manure which is for instance a conventional practice in deep stable manuring (bull fattening) leads to lower losses has not been discussed.

c) The main topic has been the utilization of slurry. Slurry farming especially in combination with field forage cropping allows for higher livestock intensities. This results however in significant problems with regard to a very high or even excessive amount of nutrients with increased hazard to the environment (soil, air, water), and the seasonal distribution during the whole year.
An appropriate storage volume (for ca. 6 months) is a necessary prerequisite for a certain flexibility in slurry application. However, high storage capacity alone does not solve the problem of how to apply higher amounts of slurry only at certain times depending on the plant's growth and nutrient demand. Therefore, cropping and fertilizing systems have to be developed (intercropping, straw manuring, use of nitrification inhibitors, etc.) which make it possible to utilize nutrients from slurry for plant production to the largest possible extent thus saving mineral fertilizers. The goal of this concept is to minimize losses of nutrients (especially nitrogen) during preparation, storage and application (especially evaporation of ammonia and leaching of nitrate). Agricultural technicians are particularly challenged to develop and test new technical systems of storage and application of slurry.

4. In slurry fermented to produce biogas, carbon is transformed to energy in the course of fermentation while nitrogen remains without losses. These high amounts of nitrogen finally result in the same problems as in the application of normal slurry: combined, that is aerobic and anaerobic, systems offer more favorable prospects.
The cardinal problem, however, is still the intensity of livestock keeping resulting in a high N supply; to solve this problem is very difficult and calls for political decisions with far-reaching effects as well as for the establishment of (regionally different) priorities (i.e. has an intensive agriculture or the production of drinking water the priority).
5. The problems arising from application of sewage sludge especially with regard to heavy-metal pollution of soils and plants have been discussed only marginally because several symposia on these special topics have been held in the last few years.