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Press Release 5/2003**Environmentally friendlier grain drying**

Even in a year as dry as 2003, farmers are always faced with the problem of making sure their grain harvest is dry enough for storage.

Grains need a moisture content of between 9 % and 15 % for good storage: any more, and mould may develop; any less, and the germ of the grain will die, reducing viability. Grain is often dried using the continuous flow drying principle in which the grain is moved through warm air in a series of horizontal channels. The problems with the technology are the high levels of energy required, the dust that is created, and the unevenness of the results.

Researchers in the Institute for Agricultural Technology in Potsdam-Bornim (ATB) are optimizing the process by analysing how moist the grain is before it enters the drying



process. 'The amount of moisture in the grain can vary by up to 10 % within a single cutting,' Dr. Nikolaus Model says. 'If we know the distribution of moisture within the harvest, we can use this information when setting the dryer.' The researchers are creating a simulation model that factors in air speed, grain flow rate, temperature, and moisture levels. The project leader, Dr. Mellman, explains: 'We are working closely with dryer producers and users to ensure that the new, energy-saving solution will work in practice, and will really contribute to making grain drying more environmentally friendly.' Mellmann estimates that the optimization could lead to energy savings of as much as 20 %.

For more information, please contact:

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