S2. Description of PF technologies included in the choice experiment and survey.

Description of farm management technologies

New farm management technologies are being developed to <u>reduce the application of fertilizer and irrigation</u>. These technologies are based on the observation and measurement of the variability in crops and soil conditions. Based on these measurements fertilizers and water for irrigation can be applied on a variable rate.

These technologies differ in the degree to which the farmer has to take own decisions about fertilizer application or whether the application is done automatically. Three main technologies can be distinguished:

Technology	Description
Non-automated technology	• Uses <u>satellite images</u> to generate field data maps (nutrient surface maps and fertilizer prescriptions) useable on a pc or mobile device • You can use the field data maps to determine the input levels manually • Full data analysis by you required • You can control the input application
Partly automated technology	• Uses <u>satellite images</u> to generate field data maps (nutrient surface maps and fertilizer prescriptions) useable on a pc or mobile device • You can program the board computer of your spreader to determine the input levels making use of the field data maps. • Some data analysis by you required • You can control the input application
Fully automated technology	• Uses <u>real time sensors</u> to generate field data • The built-in sensors determine the input levels real time and communicate these levels with the board computer that controls your spreader. • No data analysis by you required • You <u>cannot</u> control the input application