KIT 3.3

Develop and implement management options to minimise the cost of effectively and sustainably managing diseases.

Impact	**Growers are able to sustainably reduce the impact of the most important diseases on farming systems and grain production.**
Summary	• Growers have access to options to effectively minimise the impact of diseases on farming systems and profitability. • Growers implement integrated management strategies to maintain the effectiveness of disease control options.

SCOPE	INVESTMENT OUTCOMES
Understanding of the distribution and impact of diseases The current and potential future distributions and impacts of diseases are quantified.	3.3.1 Growers have access to and use tools and technologies to identify, quantify and map the distribution of diseases in farming systems. 3.3.2 Growers and researchers understand the current and future potential impacts of different diseases. 3.3.3 Research efforts focus on diseases prioritised on the basis of current or future potential impacts.
Understanding of the biology and ecology of priority diseases Knowledge of disease life cycles under current and future growing conditions is improved to support the development of optimal management options.	3.3.4 Growers and researchers understand the life cycle, dispersal, survival and distribution characteristics of diseases. 3.3.5 Growers have the knowledge and tools to effectively monitor changes in the impacts, crop interactions and fungicide resistance status of diseases.
Tools and technologies to manage disease Tools and technologies are developed to assist growers to optimise management of priority diseases in farming systems.	3.3.6 Growers have access to tools to accurately and rapidly detect endemic and exotic diseases in the field. 3.3.7 Growers have access to diverse genetic, chemical, biological and cultural options for the control of diseases. 3.3.8 Growers minimise the development of fungicide resistance through the use of diverse and practical disease management strategies.
Integration of disease control decision-making in farming systems The management of diseases is optimised in a whole-of-farm business and farming system context.	3.3.9 Growers understand the risk and economic implications of disease management options within farming systems. 3.3.10 Growers and their advisers have knowledge of seasonal disease risks at paddock, farm and regional levels. 3.3.11 Growers have knowledge of the short-term and long-term relevance of varietal responses, rotations, disease thresholds and farming system changes in making informed decisions on disease management.

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