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a) i- Research is needed to evaluate the effectiveness and profitability of the new technology. ~~Basic~~ Research is needed to establish the new technologies Marketing specifications and find out what would be best suited in the growing market. It is also needed to enable the maximum profit and value in the new technologies role. Natural resources also need to be managed and sustained <sup>when</sup> developing new technologies and research will allow this. Biosecurity control is also ensured by research before developing the new technology. The use of research allows the best possible outcome for the technological development. and prevents many problems from arising from the use of the technology.

11- When a newly developed technology is introduced it may not be widely adopted because ~~the~~ farmers and business owners are unaware of the technologies effects on profitability and ability ~~to~~ in the farm or business. Technologies such as genetic modification can be rejected because of the idea that it is bad for the environment & individuals because ~~the~~ of the unnatural use of transgenic species.

Technologies may also be expensive and time consuming to install, and because of the lack of knowledge on the new technology, no one wants to be the first to try it incase there is no profit~~s~~ gained.

The technology may also not be widely adopted because of the lack of feedback about the technology. Due to the recent introduction of the technology there is a concern about the effects the technology <sup>has</sup> ~~will~~ have on the production

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b-)

Computer related technologies are very highly used in today's society. In Agriculture technologies and agricultural production benefit highly from the use of computer assistance. Developments in these technologies allow a more relaxed lifestyle, better management, reduced stress, reduced labour, better time management, better record keeping and an all round easier way to manage agricultural production. The use of these technologies such as; Robotic Milking, ~~E~~ National Livestock Identification Service (NLIS) and weather forecasting, brings many benefits to agricultural production.

Robotic Milking is a recent development in computer technologies. The milker uses a robotic arm, ~~and~~ sensors and milkers to milk the cows. Information such as; milk yield, weight of cow, number of milkings per day/per cow, any impurities or diseases in the milk and amount of milk obtained, is all stored in the inbuilt computer in the machine.

The benefits of this computer technology are;

the dairy farmers to have a better social life because the whole process of milking is controlled by the computer, it also reduces the amount of stress & injury involved in the production of the milk.

The Robotic Milker also allows better management because milk yield<sup>per day</sup> and amount of milk obtained from each cow is recorded. The cows are also weighed which saves time for farmer and allows accurate weight recording.

The Robotic Milker allows the maintenance of milking records and accurate milking management due to the computer.

Another recent development in computer technologies is the NLIS tags. These Livestock identification systems allow the complete tracking & control of livestock. The system is recorded on a computer database and monitors the movement of agricultural animals such as cattle, sheep, and goats. The use of the NLIS tag allows the source of a disease to be found and tracked.

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It also allows stolen animals to be identified. The animals information recorded on a computer and accessible when the NUS tag is scanned.

This computer technology allow the monitoring and management of Australian meat and wool production and prevent disease from spreading and allow theft to be managed.

The use of Internet weather forecasting on the computer can be very beneficial in an agricultural production system such as a farm. With the use of the internet weather forecast the farmer is easily able to view what the weather is predicted, on the computer. This allows the farmer to plan his farming for upto a week. The benefits of a rain warning forecast allows the farmer to ensure any young animals are undercover and protected and also allows the farmer to predict when to sow crop.

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The benefits of a wind forecast allows windbreaks to be put up to protect crops and also allow adequate protection for young animals to be provided. Sheep Grazers warnings allow adequate time to ensure lambs are protected from the weather. Fertilizer timing can also be managed due to weather warnings because the ecosystem & Riverways would become polluted if fertilizer was applied just before rainfall.

The use of computers as records also prove to be very beneficial for the business. Information can be safely stored in the computer and programs with spreadsheets and password locks allow the production to benefit greatly from the security and organization. This assists management because it allows information about animal and plant production to be adequately maintained.

The use of these computer related

technologies are very beneficial in agricultural production because adequate monitoring and management is maintained through the use of the adequate records.

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