

1st ISATA – International Symposium on Agricultural Technology Adoption: studies, methods and experiences



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Adoption of a Decision Support System for Coexistence of Extensive Livestock to the Pantanal Flood Dynamics: Related Factors

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Seasonality of Pantanal flooding, depending on the intensity and duration, can drastically reduce the food supply and even the death of livestock by starvation or drowning. In this context, the question that is asked each year is: what will be the magnitude of the rising of rivers and floods and when will this occur, so that cattle removal is necessary? There is a cost involved in the removal of livestock, so this decision should be supported by data that could best estimate the risk of extreme flood events. The Geohidro-Pantanal flood decision-making system is being refined to host three main components: 1 - Mapping and modeling of Pantanal flood dynamics by satellite imagery, 2 - Flood risk forecast modeling for Alerts and floods 3 - Communication of flood and flooded alerts from Internet communication tools, as well as media such as television and radio interviews. As a result of our experience with the system since 2013, we have listed some factors that negatively influence the adoption of digital technologies that make up the Pantanal decision-making alert system: 1 - Values based on beliefs, intuitions and empirical personal experience. Little importance is given to scientific data and studies; 2 - Simplified production system based on practical income passed on from generation to generation; 3 - Because extraordinary events of rainfall and flooding occur less frequently and with a high degree of uncertainty, there is a tendency to focus on more and more desired ordinary and productive patterns and a “temporary forgetting” of extraordinary events. destructive and unwanted; 4 - The reading and interpretation of long technical texts and sophisticated graphics are not well understood and therefore are ignored. Maps that are more intuitive in understanding the information you want to share are more widely accepted; 5 - Many farmers know their own farm but ignore the geographical

context in which their farm is located. Therefore, they do not include processes that occur in the river basin and the Pantanal as a whole and influence their ownership. 6 - Technology transfer is not reaching all producers, or it is in an inadequate format. Considering that the global trend is for the increasing adoption of digital data technology and environmental systems for decision-making in optimizing agricultural and livestock production, we understand that we are on the right track on technology, but we still have a lot to do, to improve the factors linked to the adoption of these technologies in the Pantanal.