

## 7. Choice and risks of management strategies of farming calendar: application to corn production in Southern Benin

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This study examines the different levels of risks related to management choices of corn farming calendar in southern Benin. For this purpose, a series of simulations of potential yields of corn variety DMR-ESR-W has been carried out with the model SARRA-H V3.2 with a 10 day shift, from February to November, in the automatic search of the sowing date between 1971 and 2010. Thus, it has been possible to highlight the seasonal dynamics of the percentage of successful sowing, the potential yield and the grain drying date depending on the sowing date. It appears that the maxima of percentage of successful sowing and potential yield are obtained by sowing when the rainy seasons start. However, by integrating biotic constraints in the choice of the planting period, it appears that the periods of least risk to plant are the first half of May for the long rainy season and the first half of September for the short rainy season. Nevertheless, between the rains' start dates (early April) and seedlings (early May) for the long rainy season, there is a lag of about a month, which raises the question of the relevance of the adoption of the go-days-corn varieties during the long rainy seasons as an adaptation measure.