

ECOLOGICAL SUSTAINABILITY: DIAGNOSIS AND EVALUATION IN TWO ORGANIC FARMS IN JAGUARIUNA, STATE OF SÃO PAULO, BRAZIL.

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Abstract: As the conventional agriculture showed to be unsustainable, new investigations should be done aiming to reach ecological, economic and social sustainability. This way, there is an effort to construct indicators to evaluate and document the efficiency of the agroecological practices and its progress towards sustainable agriculture. The present study was undertaken to measure ecological sustainability indicators in two organic farms, belonging to Jaguariuna Municipality, State of São Paulo, Brazil. The characterization of the farms was conducted applying the rapid rural appraisal. The same methodology was used for surveying the critical points, as well as for the identification of state indicators. Such indicators were classified and aggregated in eleven descriptors separated in three themes: land usage, biodiversity and water. Our preliminary results revealed that the farms are in two different transitional levels aiming to reach an agro-ecological performance. While the first farm started the application of organic practices 18 years ago, the second one has only 4 years of experience in organic production. Consequently, the first one showed to be more efficient, qualified and stable in its production process, since many agro-ecological practices are being utilized. Sustainability indicators showed to be efficient to evaluate the history of each farm. There is similarity among some practices utilized in both farms, such as high vegetal diversity, rotation of cultures and mixed production but significant differences were also detected between them, such as natural resources preservation practices. Although both are considered organic, they differ significantly when sustainability indicators and conversion practices were considered.