**Supplemental Table 2.** Crop plant preferences variable descriptions and limitations.

Descriptions of the variable (columns) in Supplemental Table 1 and limitations of the data that may be addressed in later studies.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Description** | **Values** | **Source (see references in Supplemental Table 1)** | **Data limitations** |
| Soil moisture | Dry (excessively well drained) | 1 | Recorded as reported qualitatively from literature | Dummy variables (not quantitative values, values coded to represent the categorical variables) |
| Moist (well-drained) | 2 |
| Wet (poorly drained) | 3 |
| Soil texture | Loam, clay, sand, silt, and limestone soils applicable to the crops being investigated. NULL or blank values indicate that none of the literature investigated specified tolerance for the particular soil type. In cases where the crop is said to grow in a wide variety of soils, Loam was given a value of “Y”) and taken as preference. | Y (tolerates soil type)  N (does not tolerate soil type) | Recorded as reported from literature | Important soil chemical properties e.g., pH, are neglected in this study |
| Drought tolerance | Intolerant | 1 | Recorded as reported qualitatively in literature | Dummy variables (not quantitative values, values coded to represent the categorical variables), not specific to life stage of the crop or the length or drought (long or short term) |
| Low tolerance | 2 |
| Somewhat tolerant | 3 |
| Tolerant | 4 |
| Waterlogging tolerance | Intolerant | 1 | Recorded as reported qualitatively in literature | Dummy variables (not quantitative values, values coded to represent the categorical variables), not specific to life stage of the crop, or the length of flooding/waterlogging (long or short term) |
| Low tolerance | 2 |
| Somewhat tolerant | 3 |
| Tolerant | 4 |
| Spacing requirements at planting | The spacing requirements for a crop, between rows and between plants if available in meters | e.g., 1 m × 1 m | Amalgamation of values found in literature, in the case of many different values recorded in the literature, a range is created based on the lowest and highest values reported | Assumes spacing required for monocropping, for some plants this value represents branch length (approx. diameter of mature tree) |
| Time of year of harvest | Range of relevant months | e.g., May–August | Amalgamation of values found in literature, in the case of multiple values recorded in the literature, a range is created based on the wideset range of months | Surveyed literature not wholly specific to the Usumacinta River region; practices may differ by region and by intended use |
| Time from sowing to harvest | In days or years | e.g., 180 days | Amalgamation of values found in literature, in the case of multiple values recorded in the literature, a range is created based on the lowest and highest values reported | Surveyed literature not wholly specific to the Usumacinta River region; practices may differ by region |
| Number of harvests per year | Number of potential harvests per year, in the case of multiple different values reported in the literature, highest value is recorded | 1-3 | Recorded as reported in literature | Surveyed literature not wholly specific to the Usumacinta River region; practices may differ by region |