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Corrections to: Future Global Soybean Yield Projections

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The unit of Figure 1 is 0.1 mm and needs modification mentioned below. The key of this paper is to use temperature and precipitation on crop area using zonal statistics equipped with ArcGIS software provided by ESRI. Mean temperature and precipitation on crop area are underestimated. We regard them as an index, the method mentioned above can be used and nothing change from Table1 to Table3. To obtain a realistic mean value, following procedure can be used.

DATA1: Temperature and precipitation data

The resolution of temperature and precipitation data is 720(horizontal) by 360 (vertical). Replace each grid value to "1". Apply DATA1 for zonal statistics by country boundary. Zonal statistic provides the mean value. In case of USA, the mean value is "1". DATA2: Extracted crop area from Global Land Cover (GLCNMO) Data. The resolution is 43200(horizontal) by 21600(vertical). Extracted crop region is expressed as "1". DATA3: Multiply DATA1 by DATA2 using raster function and then conducts zonal statistics. Zonal statistic provides the mean value. In case of USA, the number is "0.25572". In Figure 1. Country average data can be used directly but data on crop must be multiplied 3.91 (=1/0.25572). Figure 1 should be replace by following figure.

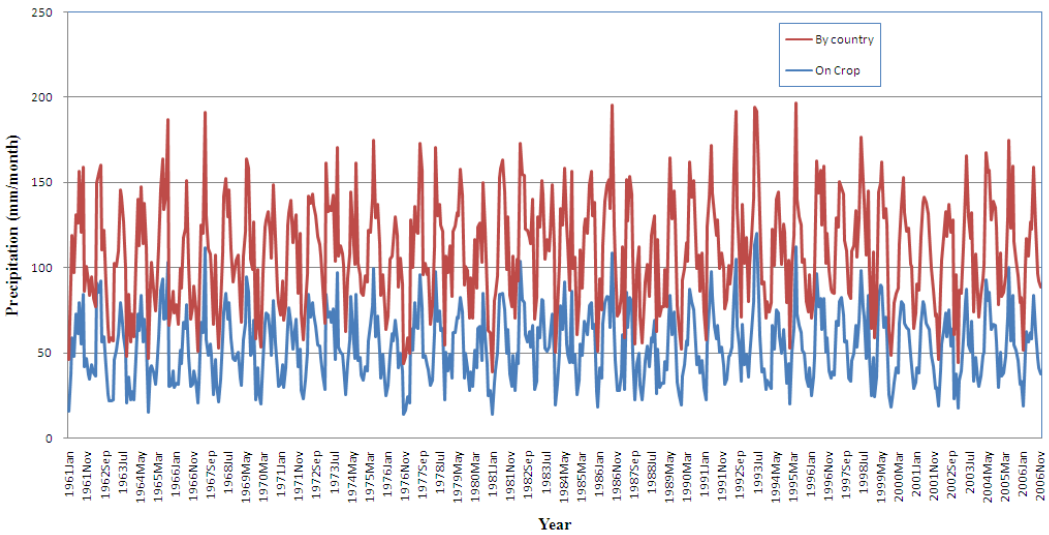

Figure 1. Comparison of country averaged precipitation and precipitation on crop area in USA

As for cropping calendar, Figure 5 should be replaced by following figure.

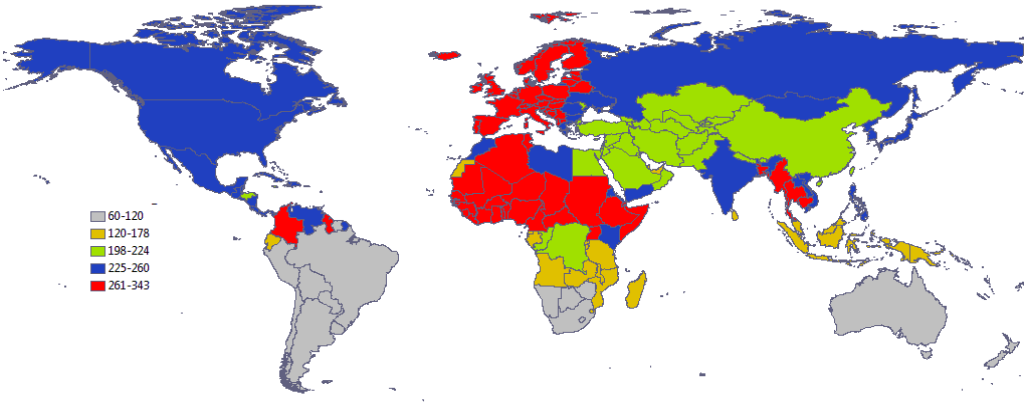

Figure 5. Soybean cropping calendar (Harvesting Starts, days of year)