4. **2nd Weeding** - The second weeding of sorghum occurred between the middle of July and the middle of September. The most common second weeding period was from the first of August to the first of September.

5. **Cutting** - The cutting of sorghum occurred between the first of September and the first of December. The most common cutting period was from the first of November to the end of November.

6. **Threshing** - Threshing of sorghum occurred between the first of October and the middle of January. The most common threshing period was the middle of December.

**Cultivation - Fallow Rotation**

The length of time that a field is cultivated varies from one farmer to the next, but the usual time period is 6 to 10 years. The number of years that a farmer will consecutively plant in the same field is dependent on the fertility of the field and a farmer's access to other crop land. To help offset the degradation of soil fertility which results from the continuous cropping, farmers plant cash crops and subsistence crops in the same field in alternating years (e.g., millet, then sesame or groundnuts, then millet again). The appearance of *striga* (buuda) is recognized as a sign by most farmers that the field should be allowed to go fallow. Fallow periods last anywhere from 3 to 15 years, again depending on the farmer's access to other farmland. If a farmer does have access to other farmland, he will usually allow gum arabic trees to germinate on his fallow field and begin tapping these after 3 to 4 years. Tapping of gum may continue for as many as 10 to 15 years, but frequently farmers return their fields to cultivation after a shorter time period.

What is interesting about this shifting cultivation pattern is that although decisions to shift are often made by individual farmers, the decisions significantly impact other farmers whose fields are adjacent to the shifters. The usual pattern involves a couple of farmers who decide that next year they will allow their fields to go fallow. The following year other farmers' fields which are adjacent to these fallow fields are invaded by pests and animals which accumulate in the fallow areas. As a result, these farmers opt to shift as well the following year rather than contend with the animals and pests. This process continues until all the farmers cultivating in the area are forced to shift due to pest and animal invasion from fallow areas. The net result is that large tracts of land next to the village will be fallow, while other areas will be extensively cultivated. From first observation this land-use pattern gives the impression that farmers are making collective decisions to shift from one fallow area to another. In fact, what is happening is the result of accumulated individual decisions.  

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32 We are indebted to Dr. James Beebe and Abdel-Moniem el-Obeid of USAID/Khartoum, who were primarily responsible for bringing this shifting pattern to our attention. They discovered such patterns during their stay in Umm Hijlili, a village to the northwest of El Obeid. One variation in this shifting pattern which they identified was that sometimes some extended family members may make collective decisions to shift. Our findings indicate that such decisions are more commonly made on an individual basis in the villages selected for our study.