

of land they are cultivating. Should drought conditions or pests adversely affect one of the crops, farmers are helping insure that one of the other crops will produce something. In limited resource farming under fluctuating environmental conditions, this is not a bad strategy. Third, by having one or more crops germinate from the same hole with sesame, the sesame crop is less susceptible to wind erosion. This is one of the main reasons why sorghum is planted with sesame. As stated earlier, the sorghum root structure is fairly firm and the stalk is strong which helps prevent sesame plants growing beside it from blowing away. Fourth, watermelon and sorghum are also consumed by laborers when they are cutting sesame in the fields. In many of these villages, drinking water is in short supply so watermelons provide a water source in the field for these laborers. Sorghum stalks, which have a high water and sugar content,<sup>27</sup> also help quench the thirst of these laborers.

An additional advantage of intercropping is that it may help maintain soil fertility. This is particularly so with legumes like cow peas. Although some farmers recognize this effect, the other reasons given for intercropping are viewed as more important.

#### Intercropping Millet

As for millet, very few farmers in our sample intercropped it with another crop. Seventy-one percent of the farmers who grew millet grew it in a separate stand (27 of 38). Of the 11 farmers who did intercrop millet with another crop, the most common crop grown was watermelon. Our findings indicate that the usual pattern is to plant other crops with millet only in the spaces of the millet field where it did not germinate. Seven of the 11 farmers intercropping millet followed this pattern. However, 4 farmers did plant watermelon with millet in the same hole, and 1 farmer planted watermelon between the rows.

The main reason given by farmers for not planting other crops with millet is that millet is too "hot", and tends to compete vigorously against other crops. This advantage is due to millet's extensive root system and tendency to tiller. When farmers do plant other crops in the open patches of their millet field, they do so for the same reasons they plant crops in their sesame fields. They are making use of what limited cultivated area they have access to given the high cost of land clearing and labor. These other crops planted in the spaces tend to be unaffected by the "hot" qualities of millet due to the low density of the millet.

#### Intercropping Groundnuts

Of the 19 farmers in our sample who planted groundnuts, only 4 intercropped them with another crop. Sorghum was grown with groundnuts by two farmers, planting a row of sorghum between every 3-6 rows of groundnuts. Other crops like watermelon, cowpeas, and sesame were sometimes planted in the spaces where the groundnuts didn't germinate.

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<sup>27</sup>Sorghum stalks taste like sugarcane.