**INTRODUCTION**

Sorghum, a staple food in Africa, does not contain adequate amounts of provitamin A carotenoids to address the problem of vitamin A deficiency which affects up to 31 million people on the continent. One attempt to solve this problem is through fortification with β-carotene, the primary compound in the carotenoid group due to its high provitamin A activity. Due to their high level of unsaturation, β-carotene have been tested in many foodstuffs that have been suggested for improving human nutrition.

**MATERIALS AND METHODS**

Products selected for testing the effect of processing on β-carotene. The guiding level of spiking was based on the level of β-carotene in milled sorghum flour, spiked with β-carotene. The primary compound in the carotenoid group due to its high provitamin A activity. Due to their high level of unsaturation, β-carotene have been tested in many foodstuffs that have been suggested for improving human nutrition.

**OBJECTIVE**

To assess the retention of β-carotene in three traditionally prepared sorghum products made from milled sorghum flour, spiked with β-carotene. The guiding level of spiking was based on the level of β-carotene in golden rice, which is reported to be up to 35 µg/g.

**RESULTS AND DISCUSSION**

Table 1 shows the effect of cooking on spiked sorghum samples for all three products made from the two sorghum varieties. The unspiked samples had initially low levels of β-carotene, and cooking did not show any significant changes in those levels.

In the spiked samples (Table 1), it was observed that cooking significantly reduced β-carotene levels. The retention of β-carotene in P898012 and SK5912 respectively were:

- Ugali: 62% and 54%
- Tô: 52% and 49%
- Ting: 41% and 40%

The effect of processing on β-carotene levels in sorghum can be seen in Figure 3. The retention of β-carotene in the spiked sorghum samples subjected to three cooking treatments.

**CONCLUSIONS**

Can fortification of sorghum with β-carotene address the problem of vitamin A deficiency in Africa? CSIR researchers have shown that food preparation methods may drastically affect the amounts available to the consumer.

**REFERENCES**