INTRODUCTION
Cowpeas are considered as an important protein source in the diet of people in developing countries. Long cooking times of cowpeas adversely affect utilization of cowpeas. Whole cowpeas cook longer compared to dehulled cowpeas due the influence of the seed coat. However, research on effect of dehulling of cowpeas on cooking and sensory characteristics is lacking.

OBJECTIVE
To determine the effect of dehulling of different cowpea types on selected cooking and sensory characteristics.

EXPERIMENTAL
Characterised cowpea types in terms of:

- Thick seed coat
- Thin seed coat
- Compact cotyledon (Bechuana White)
- Porous cotyledon (IT82E 18)
- Compact cotyledon (Black Eye)
- Porous cotyledon (California Black)
- Whole cowpeas
- Dehulled cowpeas

Analyses:
- Water absorption during cooking
- Cooking time
- Texture of cooked cowpeas
- Descriptive sensory evaluation using trained panel
- Consumer sensory evaluation (n=53)

RESULTS AND DISCUSSION
Seed coat removal increases the rate of water absorption during cooking (data not shown), reduces the cooking time (Table 1) and results in softer texture (data not shown) of cooked dehulled cowpeas compared to whole cowpeas.

Table 1. Effect of dehulling of different cowpea types on cooking time

<table>
<thead>
<tr>
<th>Thick seed coat</th>
<th>Thin seed coat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact cotyledon</td>
<td>Compact cotyledon</td>
</tr>
<tr>
<td>Porous cotyledon (Bechuana White)</td>
<td>Porous cotyledon (California Black)</td>
</tr>
<tr>
<td>Whole</td>
<td>Dehulled</td>
</tr>
<tr>
<td>112.4 (1.0)</td>
<td>83.0 (5.1)</td>
</tr>
<tr>
<td>125.7 (2.3)</td>
<td>90.3 (2.8)</td>
</tr>
<tr>
<td>25.7 (0.5)</td>
<td>25.7 (0.4)</td>
</tr>
<tr>
<td>30.6 (0.4)</td>
<td>31.6 (0.4)</td>
</tr>
</tbody>
</table>

Means followed by different superscripts in a row are significantly different at p<0.001; Standard Deviations of the means are in parenthesis.

Dehulled cowpea samples have reduced intense cooked cowpea aroma (Fig. 1), spicy aroma (Fig. 1), degree of bitter aftertaste (Fig. 2), degree of firmness and degree of chewiness/rubberiness compared to whole samples (Fig. 3). However, the dehulled cowpeas have higher perceived intensities for nutty and grassy aromas (Fig. 1) as well as raw peanut flavour (Fig. 2). Dehulled samples are also more mushy upon cooking (Fig. 3).

CONCLUSION
Dehulling of cowpeas can be used to help reduce the cooking time of cowpeas without adversely affecting the sensory acceptability.

REFERENCES