Liveweight responses to zeranol implants have been reported in steers by Wellington et al (1980) and to strategically drenched yearling heifers by Krocker (pers. comm.).

In May 1981, 96 Angus steer calves born in March and April were allocated randomly to treatments of two zeranol implants (36 mg) 100 days apart or no implant. These two groups were further split into three groups to receive treatments of no drench, two strategic drenches (June and September) and six-weekly drenching from May to November inclusive. All cows were drenched in January, May and June. The drench used was oxfendazole (Systemax - Coopers). The cows and calves were run together as one mob throughout the trial on a property near Timboon in Western Victoria.

Liveweight gain was 181 kg from July to December in calves treated with zeranol, the advantage in growth being 4 kg over the first 100 days ($0.05 < P < 0.10$) and a further 6 kg over the next period ($P < 0.05$).

Calves receiving the two zeranol implants gained 10 kg more ($P < 0.05$) between July and December. Drenched calves gained 15 kg more ($P < 0.05$) over that period. There was no significant difference between strategic and six-weekly drenching (Table 1).

### Table 1 Average calf liveweight gain (kg)

<table>
<thead>
<tr>
<th>Zeranol</th>
<th>No Zeranol</th>
<th>No drench</th>
<th>Strategic</th>
<th>Six-weekly</th>
</tr>
</thead>
<tbody>
<tr>
<td>181</td>
<td>171</td>
<td>166</td>
<td>181</td>
<td>181</td>
</tr>
</tbody>
</table>

Means with different subscripts in each section of Table 1 significantly different ($P < 0.05$ Duncans Multiple Range Test).

No interaction occurred between Zeranol implants and drenching.

Beef calves making liveweight gains of about 1 kg per day while still suckling their dams, will benefit in terms of increased liveweight gain from strategic drenching and zeranol implants.