The following conclusions emerged from the four studies:

1. Due to its high acceptability, medicinal properties and minimal sharing characteristics, methipak formed a good base for the product development. However, the doubts raised by some respondents about the adverse effects it might cause if consumed during pregnancy needed to be tested.

2. The findings of the animal experiments established the safety of consuming methi or fenugreek seed powder at a level of up to 20% during pregnancy and lactation.

3. Based on the results of the first two studies a decision was made to develop a biscuit-type product with fenugreek seed powder as one of the constituents. The methi biscuits so developed had 4% fenugreek seed powder. At this level, the acceptability was minimal among the preschool children and the biscuits were acceptable to the pregnant and lactating women beneficiaries of the ICDS. Most of the Anganwadi workers felt that methi biscuits were good for the health of the pregnant and lactating subjects and the infants. However, some opined that the bitterness of the biscuits was too intense and if could be reduced, the acceptability would be higher. Some Anganwadi workers suggested that one packet of sweet and one packet of methi biscuits should be distributed. All the Anganwadi workers said that the biscuits attracted the women to the centre and enrolment greatly increased without making any house visits which were most often not successful in bringing the women to the centre for other antenatal services. Thus this was a spin-off benefit of the intervention.

4. The methi biscuits so formulated were acceptable to the majority of the mother target group for a long period i.e. one month. Majority of the women collected the biscuits regularly and consumed them without sharing with other family members. In contrast the sweet biscuits were shared with the family members and therefore consumption by the pregnant and lactating subjects was low.

5. The % RDA of calories was raised from 60% to 79% in case of more than half of the subjects. The % RDA for protein was raised from 68% to 88%. Thus although the nutrient gap was not bridged completely, the calorie & protein intakes by the women went up considerably from their habitual intakes.
6. The cost of production of the biscuits was Rs. 1.40 per 100 g as against Rs. 1.05/- per beneficiary per day which has been allocated in the ICDS budget for pregnant and lactating women. The cost could be reduced considerably if the Government would give tax exemptions.

Recommendation

Based on the results of the present study, it is recommended that to prevent sharing of the maternal supplement with other family members so that it reaches the target beneficiaries, the nature of the present supplement be changed to a product like methi biscuit - which has been shown to have minimal sharing characteristics among children and high acceptability by the mother target group.

It is proposed that methi biscuits be introduced in some selected ICDS projects of Gujarat and Maharashtra for a trial period of six months to test the feasibility of using this product in reality situation.