



Tropentag, September 18-20, 2019, Kassel

“Filling gaps and removing traps
for sustainable resource management”

Dietary Intervention for Management of Obesity among Rural Farm Women

K. GEETHA, GEETHA YANKANCHI, NETRAVATI HIREMATH

University of Agricultural Sciences, Food Science and Nutrition, India

Abstract

Obesity and related co-morbidities are major health problems throughout the world. In India, the increased level of obesity is primarily associated with the transformation from rural to urban lifestyle. Dietary approaches for weight loss have gained widespread interest and considerable importance. Dietary fibre being one of the essential components of the healthy diet has gained the important physiological and metabolic functions in the management of obesity. Hence, the present study was undertaken to develop high fibre food mix and to assess its efficacy on obese subjects. The high fibre food mix was developed by using region specific foods with high fibre content. The efficacy of food mix was assessed through dietary intervention. Intervention was carried out on obese rural farm women for a period of 120 days by providing 1/3 rd daily requirement of protein and energy. Impact of food mix was evaluated by assessing the somatic and biochemical parameters at pre and post dietary intervention. The developed mix contained protein (15.80 ± 0.32 g), fat (2.6 ± 0.12 g), energy (320 kcal), carbohydrate (60.75g) and dietary fibre (29.5 ± 0.91 g) per 100 g of the mix. The significant reduction was observed in weight (65.34 ± 10.97 kg to 63.23 ± 10.60 kg), body mass index (27.84 ± 4.14 to 26.95 ± 4.06) and hip circumference (105.23 ± 9.96 cm to 104.93 ± 9.90 cm) from pre to post intervention ($P \leq 0.05$) period. Similarly, significant reduction was also observed in cholesterol, low density lipoprotein and fasting blood sugar from pre to post test. The food based dietary intervention with high protein and dietary fibre showed desirable reduction in body weight and biochemical parameters. Hence, the inclusion of high fibre food mix in daily diet helps in management of body weight and lipid profile.

Keywords: Body mass index and lipid profile , dietary intervention, obesity