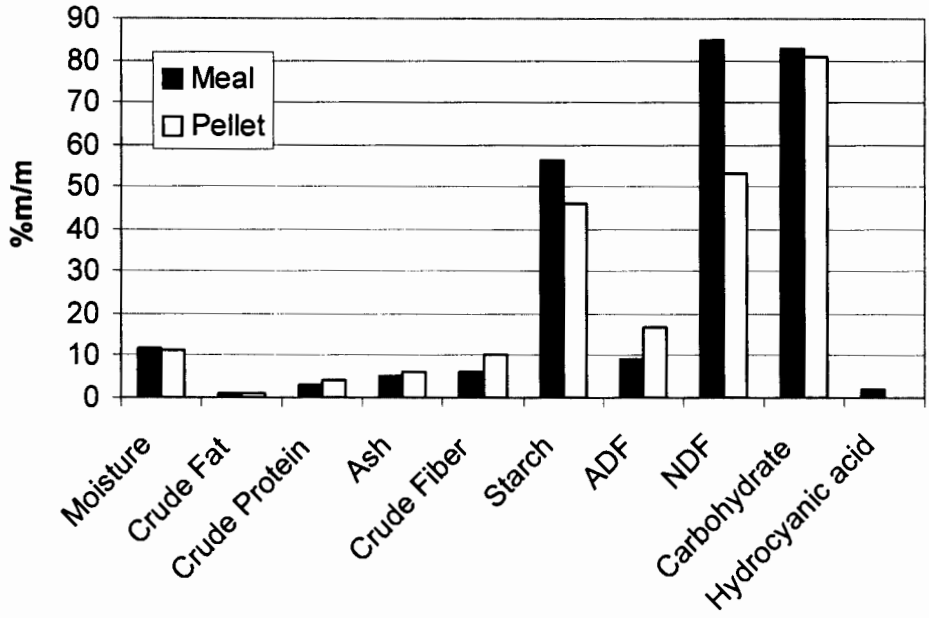

90
80
70
60
50
40
30
20
10
0
%m/m
Meal
Pellet
Moisture
Crude Fat
Crude Protein
Ash
Crude Fiber
Starch
ADF
NDF
Carbohydrate
Hydrocyanic acid

FIG. 1

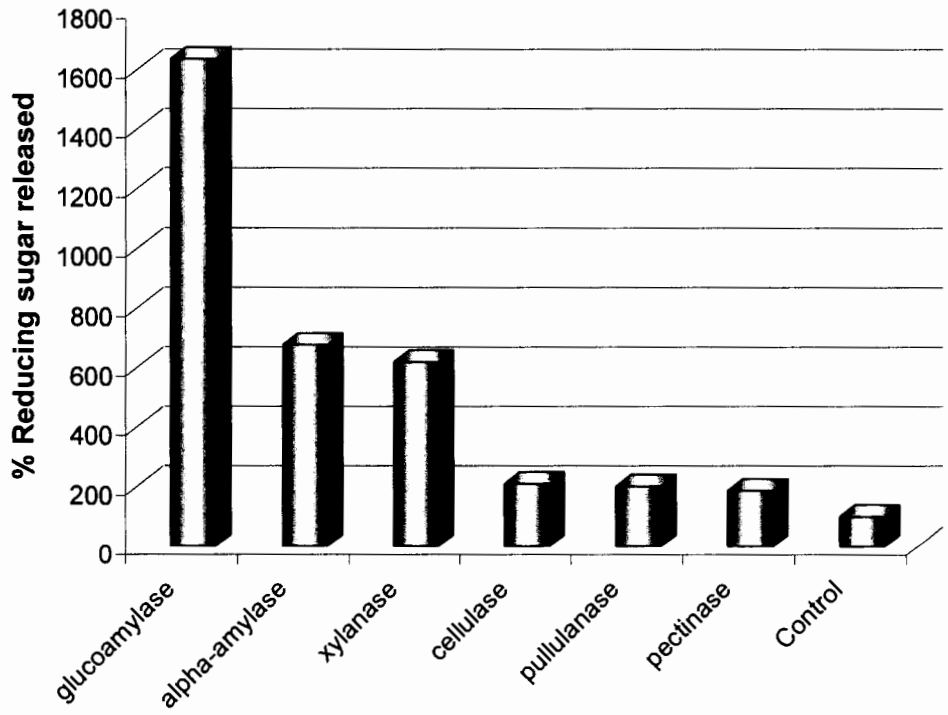

1800
1600
1400
1200
1000
800
600
400
200
0
% Reducing sugar released
glucoamylase
alpha-amylase
xylanase
cellulase
pullulanase
pectinase
Control

FIG. 2

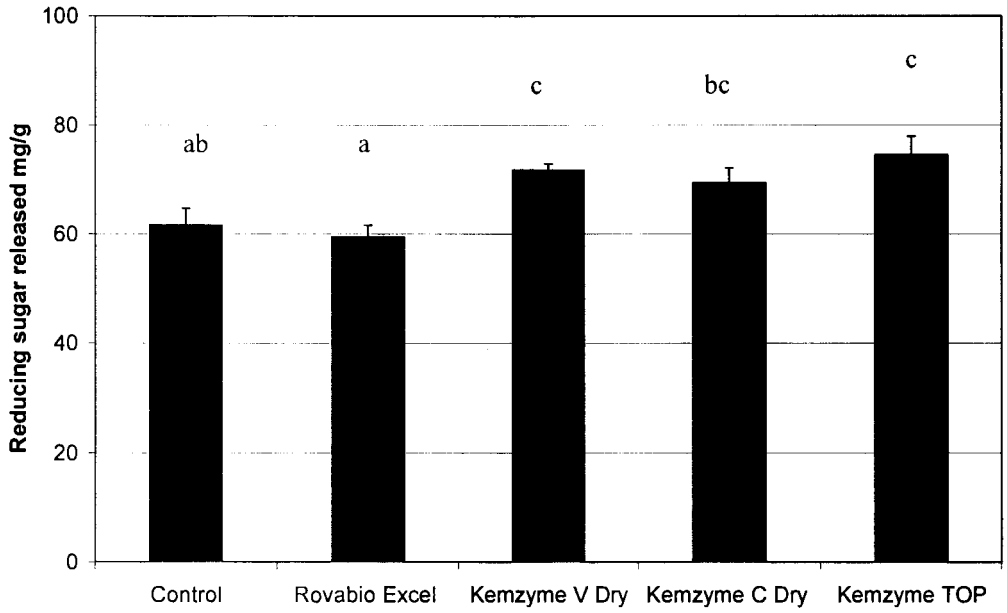
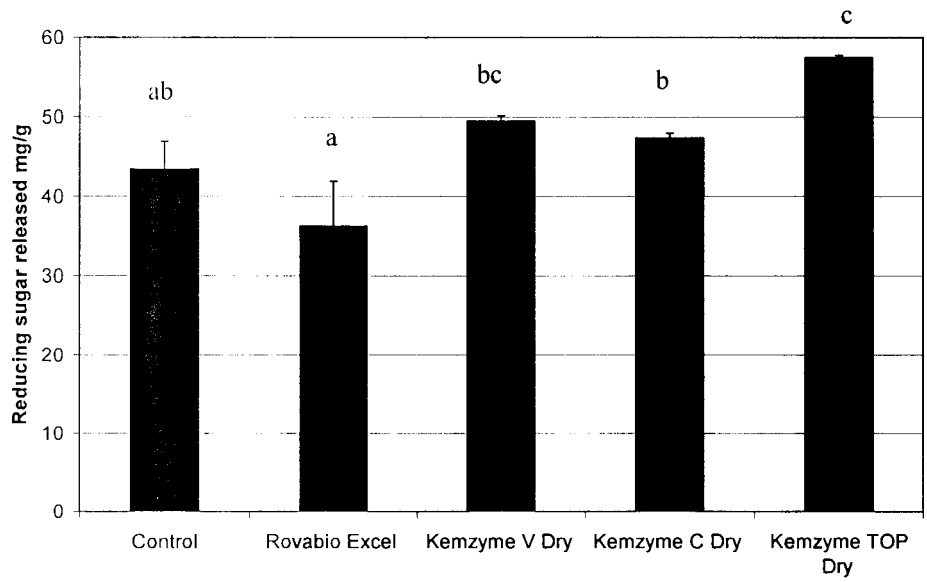


FIG. 3



α-amylase	0	0	270	450	180
Glucoamylase	0	0	0	0	2.50
Pullulanase	0	0	0	0	250

FIG. 4