SUMMARY

The quality of frozen and dried food is the reflection of obiological , enzymatic and chemical activities before , du- ; and after processing of vegetables .

On the other hand , freezing and drying are the most satisf- ry ways of preserving food stuffs since higher residual ratio he original flavour , colour , texture and nutritive values usually retained .

The present work , was carried out , using some vegetables eas , green beans and okra) .

objectives of the present work were as follows :

Examination of the effect of the different processing treatm- ents (blanching , sulfuring , freezing preservation and dehy- tion processes) on the chemical composition , enzymes activities microbiological activities of the previous vegetables . This ect was studied also during storage .

Effect of freezing and drying on chemical , microbiological and anoleptic properties and enzymes activities of the examined etables (peas , green beans and okra) before and during storage .

obtained results could be summarized as follows :

Freezing :

Blanching of vegetables before freezing lead to :

) No considerable reducing in protein , ash , crude fiber and sugars . Considerable reducing in total chlorophyll , chlorophyll (a) and (b) , ascorbic acid and carotene by prolonging temperaturs and time blanching . Moisture by prolonging temperatures and time blanching .

) The enzymes activity were higher at 70°C than that noticed at 80° and 90°C . On the other hand , on using 80° and 90°C for blanching the samples , higher inhibition of enzymes were realized by heating for 5 minutes .

:) Total microbial counts , Psychrophilic , Staphylococci bacteria and Coliform group proved to realized a reduction level as result of extending blanching periods .

Frozen storage of peas , green beans and okra at -I8°C for I2 months indicated that :

ı) Moisture , ash , protein , crude fiber and sugars had no considerable reduced after 6 months of storage .

) Total chlorophyll , chlorophyll (a) and (b) , ascorbic acid and carotene contents were slightly decreased after storage .

) The higher temperature of blanching before freezing led to the greater inhibition effect of the enzymes . This could be clearly noticed by comparing the effect of using 90°C for 5 min instead of 70°C .

.) The frozen green peas , green beans and okra previously blanching in total microbial count , Staphylococci , Psychrophilic bacteria and Coliform group during freezing .

:) Sensory evaluations of green vegetables showed that blanching treatment can protect the colour , flavour and texture of the treated samples proved that samples blanched at 90°C were much better in cooking quality than the suggested other temperatures.

· Drying :

.ed (by oven-dehydration and sun-drying) and storage of okra

r I2 months indicated that :

- Blanching (in boiling water or boiling water containing 0.2°/° sodium metabisulfite) of okra before drying lead to considerable

changes in protein , ash , crude fiber , sugars , total chlorophyll , chlorophyll (a) and (b) , ascorbic acid and carotene except for those treatments treated with 0.2°/° $Na_2S_2O_5$.
Total counts of bacteria , molds and yeast were decreased in all blanching medium .

- Effect of storage :

a) The dried okra previously blanched showed gradually decreasing in protein , ash , sugars and crude fiber during storage . Total chlorophyll , chlorophyll (a) and (b) , ascorbic acid and carotene retentions were greately affected by the sulfuring . A slightly increase in moisture occured in all tested samples during storage .

b) Total counts of bacteria , mold and yeast were slightly increase during storage .

c) Reconstitution of dehydration of dehydrated okra treated with sulfuring was higher than those blanching in boiling water and un-blanched . So , reconstitution of dehydrated okra by oven was higher than those dried by sun-drying .

d) Sensory evaluations of dried okra showed that blanching treatment can protect the colour of the tested samples . Also , sulfuring treatment improved the whole acceptability of dried okra during storage . Oven-dehydration at 60°C for I2 hr led to higher score in sensory evaluation .