CONTENTS

INTRODUCTION

REVIEW OF LITERATURE

2.1 Varieties, growth and developmental changes-physical characteristics

2.2 Chemical Composition

2.3 Physicochemical changes during shelf life of ber fruit

2.4 Processing and preservation of ber fruits

2.4.1 Browning reaction

2.5 Physicochemical changes in processed and preserved fruits during storage

2.5.1 Candy

2.5.2 Fruit preserve

2.5.3 Fruit jam

2.5.4 Fruit canning

2.5.5 Dehydration of fruits

2.5.6 Sun and solar dried fruits and vegetables

2.5.7 Rehydration

MATERIALS AND METHODS

3.1 Materials

3.2 Physicochemical Properties of Ber

3.2.1 Physical properties

3.2.2 Chemical composition

3.3 Standardization and preparation of ber products
3.3.1 Ber candy 37
3.3.2 Ber preserve 41
3.3.3 Ber jam 42
3.3.4 Mixed fruit jam 43
3.3.5 Canned ber 51
3.3.6 Dried and dehydrated bers 54
3.3.7 Ber jelly 56
3.4 Methodology 56
3.4.1 Total soluble solids 57
3.4.2 Titrable acidity 57
3.4.3 Ascorbic acid 57
3.4.4 Reducing sugar 58
3.4.5 Total sugar 59
3.4.6 Non reducing sugar 59
3.5 Experimental design 60
3.5.1 Factor analysis 60
3.5.2 Evaluation and data processing 60
3.6 Computation of relationship between the chemical attributes and storage period for ber products 61
3.7 Computation of the relationship between moisture content and drying time for ber cultivars 61
3.8 Consumer index 62
3.9 Cost of production and economics 62

RESULTS AND DISCUSSION 63
4.1 Physicochemical properties of ber

4.1.1 Physical properties

4.1.2 Proximate chemical composition of ber

4.2 Sensory evaluation of the ber products

4.2.1 Ber Candy

4.3 Chemical evaluation of ber products

4.3.1 Ber Candy

4.4 Ber Preserve

4.4.1 Colour

4.4.2 Taste

4.4.3 Flavour

4.4.4 Texture

4.4.5 Overall acceptability

4.4.6 Interaction between the varieties and storage period for texture of ber preserve by slow method

4.5 Chemical evaluation of ber preserve

4.5.1 Total Acidity

4.5.2 Ascorbic acid

4.5.3 Reducing sugar

4.5.4 Non-reducing sugar

4.5.5 Total sugar

4.6 Ber Jam

4.6.1 Colour

4.6.2 Taste

4.6.3 Flavour
4.6.4 Texture
4.6.5 Overall acceptability
4.7 Chemical evaluation of ber jam
4.7.1 Total acidity
4.7.2 Ascorbic acid
4.7.3 Reducing sugar
4.7.4 Non-reducing sugar
4.7.5 Total sugar
4.8 Sensory evaluation of mixed fruit jam
4.9 Chemical evaluation of mixed fruit jam
4.10 Canned Ber (35\(^0\) Brix)
4.10.1 Colour
4.10.2 Taste
4.10.3 Flavour
4.10.4 Texture
4.10.5 Overall acceptability
4.11 Chemical evaluation of canned ber (35\(^0\) Brix)
4.11.1 Total acidity
4.11.2 Ascorbic acid
4.11.3 Reducing sugar
4.11.4 Non-reducing sugar
4.11.5 Total sugar
4.12 Dried and Dehydrated Ber
4.12.1 Effect of drying methods
4.12.2 Effect of drying on the quality of fruits
4.12.3 Relationship between moisture content and drying time for ber cultivars

4.13 Ber jelly

4.14 Relationship between the chemical attributes and storage period for ber products

4.15 Consumer index

4.15.1 Effect of varieties, method of product preparation and storage period on consumer index

4.16 Cost-economics of the ber products prepared at home scale

4.16.1 Ber candy

4.16.2 Ber preserve

4.16.3 Ber jam

4.16.4 Mixed fruit jam

4.16.5 Canned ber

4.16.6 Dried and Dehydrated ber

SUMMARY AND CONCLUSION

5.1 Physicochemical characteristics

5.2 Ber candy

5.3 Ber preserve

5.4 Ber jam

5.5 Mix fruit jam

5.6 Canned ber

5.7 Dried and dehydrated ber

5.8 Ber jelly

5.9 Conclusions