

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vi
LIST OF TABLES	vii
LIST OF ANNEXES	viii
ACRONYMS AND ABBREVIATIONS	ix
INTRODUCTION	10
1. THE FRESH FRUIT INDUSTRY	13
1.1 General Aspects of the German fruit market	13
1.2 Main fresh fruits consumption	14
1.3 Evolution of the consumption of fresh fruit	15
1.4 The market for berries	16
1.4.1 Description and evolution : strawberries	16
1.5 Seasonal Supply - Demand	17
1.6 U.K. case study as benchmark	18
2. CONSUMER PREFERENCES	20
2.1 Berries seasonal consumer behaviour	20
2.2 Understanding the German consumers´ decisions and behaviour	20
2.3 Combinations with other fruits	24
2.4 Consumer knowledge about Berries	25
2.5 Fruit attributes : Convenience and healthiness	26
2.6 Psychographic segmentation : "Food-Related Lifestyle"	30
2.6.1 Psychographic segmentation is worldwide used	30
2.7 The Food Related Lifestyle (FRL): Evolution, Uses and Dimensions	31
2.7.1 The Cross-cultural variables of the FRL	31
3 CONCEPTUAL FRAMEWORK	34
3.1 Transforming FRL to new model : Fruit Related Lifestyle (FrRL)	34
3.2 Factor analysis combining FrRL and new dimensions of measurement	34
3.3 Relevant questions and questionnaire design	36
4. RESULTS AND DISCUSSION	38
4.1 The sample	38
4.2 Previous analysis about non-seasonality and buying behaviour	38
4.3 Consumption of non-seasonal fruits, attitudes and preferences according the level of education and income	40

4.4 Consumption of non-seasonal fruits, attitudes and preferences according the size of the cities and families	
4.5 Attitudes towards shopping of non-seasonal fruits	41
4.6 Attitudes towards attributes of the non-seasonal fruits	44
4.7 Attitudes towards towards meal preparation of non-seasonal fruits	45
4.8 Attitudes towards usage situations of the fruits	46
4.9 Attitudes towards the desired consequences of the food	47
4.10 Emotional reactions towards off-seasonal behaviour	48
4.11 Attitudes towards quality expectations of the fruits out the season	49
4.12 Preferences towards origin of the non-seasonal strawberries	50
4.13 The effect of environmental issues towards the preferences	51
4.14 Results of the Factor Analysis and dimensions	52
5 CONCLUSIONS	58
6 REFERENCES	60
7 ANNEXES	64

## LIST OF FIGURES

Figure 1: Fruit Market in Germany .....	13
Figure 2: Fresh fruits consumption in kilograms per person/year in Germany .....	15
Figure 3: Strawberries statistics from Germany (in 1000 Tons).....	17
Figure 4 : Changes in Consumption habits in Germany .....	20
Figure 5 : Hierarchy of expectations as ideal standard.....	22
Figure 6: Consumer preferences of produced vs. imported fruit in Germany.....	24
Figure 7: Healthy diet according to German opinions .....	28
Figure 8: Healthy diet according to Spanish opinions .....	29
Figure 9: Cognitive structure of FRL .....	33
Figure 10 Distribution of strawberry availability according to the consumer's purchase.....	38
Figure 11 : The previous model of the Seasonalities and strawberry consumption .....	40
Figure 12: Variance and Variables of each Factor of the non-seasonal buying behaviour ...	54
Figure 13: Model of the non-seasonal strawberries buying behaviour .....	56

## LIST OF TABLES

Table 1: Results of the previous Factor Analysis .....	39
Table 2 : Percent of strawberries consumer in different income levels.....	41
Table 3 : Percent of strawberries consumer in different region of Germany .....	42
Table 4 : Attitudes towards shopping habits .....	44
Table 5 : Attitudes toward attributes of the fruits.....	45
Table 6 : Attitudes toward meal preparation of the food .....	46
Table 7 : Attributes towards usage situations of the fruits .....	47
Table 8 : Attitudes towards desired consequences of the food .....	48
Table 9 : Emotional aspects towards of-seasonal behaviuor.....	49
Table 10 : Attitudes towards expected quality of the strawberries.....	50
Table 11 : Preferences towards origin of the non-seasonal strawberries .....	51
Table 12 : Attitudes towards environmental issues.....	52
Table 13: KMO and Bartlett Test of the main factor analysis.....	53
Table 14 : Cronbach´s alpha for the extracted factors .....	55

## LIST OF ANNEXES

ANNEX 1 : Questionnaire in english .....	64
ANNEX 2 : Demographic data.....	82
ANNEX 3 : Results from the previous analysis of Seasonality .....	83
ANNEX 4 : Pearson correlations Dimension 1 : Shopping scripts .....	86
ANNEX 5 : Pearson correlations of Dimension 2 : High order attributes .....	88
ANNEX 6 : Pearson Correlations of Dimension 3 : Meal preparation scripts .....	90
ANNEX 7: Pearson Correlations of Dimension 4 : Usage situation .....	92
ANNEX 8 : Pearson Correlations of Dimension 5 : Desired consequences .....	94
ANNEX 9 : T-mean comparison and Pearson correaltions between „unusual recipes stimulate me to experiment whe cooking“ and „ I enjoy treating myself with good food“ .....	95
ANNEX 10: Pearson Correlations of Dimension 6 : Emotional aspects .....	96
ANNEX 11 : Pearson Correlations of Dimension 7 : Expected quality of the fruit .....	98
ANNEX 12 : Pearson Correlations of Dimension 8 : Origin of the fruit .....	99
ANNEX 13 : Pearson Correlations of Dimension 9 : Environmental issues .....	101
ANNEX 14 : Percent consumption of strawberries in Germany.....	103
ANNEX 15 : Model explaining the quality of the strawberries.....	105
ANNEX 16 : Confirmatory Factor Analysis of the Fruit Related Lifestyle.....	107
ANNEX 17 : Reliability test of every factor .....	111
ANNEX 18 : Regression of the factors in the model of buying behaviour .....	114
ANNEX 19 : Positive values according to German fresh fruit consumers (%).....	117
ANNEX 20 : Preferences of fresh fruit in Germany in 2006.....	118
ANNEX 21 : Consumption frequency of fresh fruit in German homes in 2006 .....	119
ANNEX 22 : Preferences of fresh fruits in Germany in 2006 .....	120
ANNEX 23 : Fresh fruit consumption in Germany (grs/person/day) 3 periods until 2005.....	121
ANNEX 24 : Data of Fruit haverst and Sales until 2007 in Germany.....	122
ANNEX 25 : Data of fruit production and Prices until 2007 in Germany.....	123
ANNEX 26 : Negative values according German fresh fruit consumers.....	124

## ACRONYMS AND ABBREVIATIONS

**ZMP** : Zentrale Markt- und Preisberichtsstelle für Erzeugnisse der Land-, Forst- und Ernährungswirtschaft

**MAFO-Institute** : Marktforschungsinstitute

**FAO** : Food and Agriculture Organization of the United Nations

**SL** : SanLucar Group

**FRL** : Food Related Lifestyle

**EU** : European Union

**USDA** : United States Department of Agriculture

**RISC** : Paris-Research Institute of Social Change

**CCA** : Centre de Communication Avancé

**VALS** : Values Attitudes and Lifestyle

**EE** : East Europe