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Contract No: 2002/134
UNIDO Project Number: TF/ROM/02/001

FINAL REPORT

1. OBJECT OF REPORT:

The report deals to the activity of the UNIDO project No: TF/ROM/02/001 concerning the "Phasing – out of methyl – bromide in the Romanian horticulture.

2. REPORT PERIOD:

The present report's data refers to the partial results recorded in the project's second year of activity, carried out during July 2003 - July 2004. The obtained results during the second cycle 2003 have been presented in Progress Report 1/2004 and contain the period between July 2003-December 2004.

3. DESCRIPTION OF ACTIVITY:

According to the TOR annexed to the Contract (2003), the activity within project sought, during the second year of development, the achievement of the objectives set.

3.1. The companies involved in the project

In the project, a number of 7 greenhouse companies were involved, companies representatives for Romania, in which the demonstrative plots were organised:

1. S.C. CODLEA GREENHOUSES S.A.
2. S.C. BRASOV GREENHOUSES S.A.
3. S.C. LEADER INTERNATIONAL S.A. - CONSTANTA
4. S.C. RJ IMPORT – EXPORT ISALNITA
5. S.C. LEOSER S.A. - BUCHAREST
6. S.C. BERSER S.A. - BUCHAREST
7. RA APPS PIPERA - BUCHAREST

3.2. Work meetings

One work meeting were undertook:" Alternatives to use of Methyl Bromide in protected areas in Romania " in Constanta during 3 - 4 June 2004 , in the same time with the participation to the "Expoagroutil " exhibition.At this meeting were participation over 26 persons (researcers, administrative sattafs, growers,experts, mass media).

3.3. Other activities

During 2004, the Nemasol disinfectant has been homologated , producted by Taminco NV Belgium, in collaboration with SumittAgro Romania.

3.4. Insuring the project's development with materials and equipments

In accordance with the project documents and the proposal from the plan of activity, the following equipments and materials have been sent by UNIDO and allocated by HORTING to the companies involved in the project:

The following auxiliary materials, were ensured by the funds that had been allocated to Romania and managed by HORTING or UNIDO, materials necessary for the organization of the demonstrative plots on the Italian or Romanian markets:

- 1 600 kg Basamid Granulat
- 1 600 kg polyethylene foil
- soil mixture for seedbeds (hotbeds)
- 39 kg Matter-Bi Black Film
- 1740 cucumbers grafted plants- Nevada + Shintosa
- 1440 cucumbers grafted plants- Long John + Shintosa
- 1260 tomatoes grafted plants – Cindel + Beaufort
- 3420 tomatoes grafted plnts – Shirley + Beaufort
- 840 tomatoes grafted plants – Fado + Beaufort
- 1440 mq greenhouses equipped

The next cucumbers grafted plants were bought directly by greenhouses :

- 17458 cucumbers grafted plants – Pyralis + Shintosa F-90 S.C. Brasov
- 19734 cucumbers grafted plants – Pyralis + Shintosa F-90 S.C. Berser
- 19734 cucumbers grafted plants – Pyralis + Shintosa F-90 S.C. Leoser

3.5. Data - base

Data was collected and systemized, concerning:

- greenhouse temperature
- greenhouse soil temperature at a 10-15 cm depth
- rainfal
- greenhouse soil analysis
- the analysis of greenhouse irrigation water
- the prior fertilization program
- the prior disinfection treatments

3.5.1. The greenhouse air temperature

The data concerning the temperatures registered in the project location are present in table 1 .

Table 1. The average air temperatures, min and max in project locations:

^0C

2003	VII			VIII			IX			X			XI			XII		
	med	max	min	Med	max	min	med	max	Min	med	max	min	med	max	min	med	max	min
Bucuresti	22.8	33.5	16.5	22.3	37.9	14.0	17.8	33.5	5.6	11.8	24.9	1.1	5.5	20.0	-7.3	0.4	12.2	-10.3
Constanta	22.1	33.1	17.9	21.9	32.9	14.9	18.2	29.4	7.8	13.2	27.6	1.4	7.6	19.0	-4.0	2.8	12.8	-7.7
Craiova	23.2	35.3	16.1	22.7	39.5	12.0	18.2	33.2	5.7	11.9	29.7	-1.9	5.8	18.6	-8.2	1.1	9.7	-11.7
Brasov	19.2	31.3	8.5	18.5	37.0	6.9	14.3	29.4	0.1	9.2	27.2	-6.6	3.9	17.8	-12.1	-1.0	11.9	-17.5

^0C

2004	I			II			III			IV			V			VI		
	Med	max	min	med	max	min	med	max	Min	med	max	min	med	max	min	med	max	min
Bucuresti	- 2.5	11.3	-5.3	- 0.4	20.7	-13.4	5.1	26.4	-2.3	11.6	26.5	2.8	16.6	34.0	14.9	20.3	35.7	8.9
Constanta	0.2	15.1	-4.4	1.1	13.3	-12.7	4.5	24.1	-1.6	9.3	23.2	3.1	15.3	28.2	7.4	19.4	31.4	10.0
Craiova	- 1.7	12.4	-4.9	0.6	18.9	-12.0	5.6	27.8	-4.0	11.7	25.8	1.6	17.5	34.4	5.6	21.3	38.2	10.1
Brasov	- 3.5	12.2	-9.9	- 1.3	19.0	-15.0	4.1	21.8	-4.8	9.4	14.3	-3.7	14.4	29.1	-1.0	17.2	31.2	4.2

3.5.2. Greenhouse soil temperature at a 10-15 cm depth

In the heated greenhouse, the soil temperature in the cold period is above 15^0 C.

In the un-heated greenhouses, the temperature above 15^0 C is recorded starting with the March – April period, until November.

3.5.3. Rainfall

– the monthly and totally rainfall in project location are present in Table 2

Table 2. The monthly and totally rainfall in project locations

Litres

2003						2004							
VII	VIII	IX	X	XI	XII	I	II	III	IV	V	VI	TOTAL	Location
57.8	54.2	39.1	41.1	48.5	41.1	40.8	34.2	37.3	44.1	68.0	86.2	592.4	Bucuresti
33.4	29.5	28.0	33.7	38.4	34.0	29.4	27.0	23.1	70.9	36.1	41.2	424.7	Constanta
45.6	35.6	38.7	48.9	53.1	48.8	39.7	37.8	38.0	47.6	58.5	64.2	556.5	Craiova
86.3	72.0	53.5	44.4	34.0	28.8	31.4	28.7	32.5	56.2	79.1	102.4	649.3	Brasov

3.5.4. Greenhouse soil analysis

The main features of the soil in the demonstrative plots are presented in table 3.

Table 3. The main features of the soil in the demonstrative greenhouses:

Location	pH	H-NO3	P2O5	K2O	CaO	Organic matter
S.C. RJ Import – Export	6.6	13.1	3.4	31	91	6.9
S.C. CODLEA S.A.	6.6	12.1	4.6	31	87	9.3
SERE BRAŞOV	6.5	11.2	5.5	32	87	9.3
S.C. Model S.A. Constanta	6.5	11.7	4.3	31	88	8.3
SC LEOSER	6.6	13.2	5.3	32	85	8.5
R.A.APPS Pipera	6.5	13.8	4.6	35	90	9.5
SC BERSER SA	6.5	12.6	4.8	32	85	9.8

3.5.5. The analysis of greenhouse irrigation water

Analyses referring to the irrigation water have been made in greenhouses from Bucharest , Codlea and Constanta. Data are presented in table 4.

Table 4. The main features of the irrigation water

Features	Location		
	Bucharest	Codlea	Constanta
CSR	2.6	2.4	2.5
PS	26.45	27.15	27.43
RM	445 g/l	435 g/l	415 g/l
CI	19.58	19.25	18.89
CE	715 ms	670 ms	680 ms
RAS	1.58	1.35	1.65

3.5.6. The prior fertilization program

The quantities of mineral and organic fertilizer applied to the experimental plots are presented in table 5.

Table 5. The quantities of fertilizer applied to the demonstrative greenhouses during the last 3 years

Location	nitrate ammo-nium	Kalyum ammo-nium	complex 20:20:0	complex 15:15:15	MAP	Super-phosphat	Poli-feed	MKP	Organic
S.C. RJ Import - Export	350	420				400			
CodleaS.A.*)	850	1600	1100	200	300	600		400	30000
Sere Brasov	450	300	300			400			200000
S.C.Leader S.A. Constanta	1450	1300	1450		700	600			300000
S.C. Leoser S.A.	750	2125	1400	900	200	200			100000
R.A.APPS Pipera	2650		1450		600	600	2300	750	300000
SC Berser SA		900		1500					300000

3.5.7 The prior soil disinfection treatments

The data concerning the treatments mode for the soil sterilization in the experimental greenhouses during the last three years are presented in table 6.

Table 6. The treatments of soil sterilization in the experimental greenhouses during the last 3 years

No:	Location	Treatment of the soil		
		2000	2001	2002
1	S.C. RJ Import-Export	-	-	-
2	Codlea S.A.	Methyl bromide	steam	-
3	SERE Brasov	steam	-	-
4	S.C. Leader S.A. Constanta	-	-	-
5	SC Leoser	Methyl bromide	-	-
6	R.A.APPS -Pipera	copper sulphate	copper sulphate	copper sulphate
7	SC Berser SA	Methyl bromide	-	-

3.6. The organized technological alternatives:

According to the TOR provisions annexed to the contract, the following alternatives were sought in the demonstrative plots organized in the greenhouses involved in the project:

- Metham Sodium
- Dazomet
- Grafted plants

Bearing in mind each greenhouse's particular situations, there were organized additional demonstrative plots in which the soil disinfection was carried out by:

- Steam

The greenhouses that had in stock Methyl Bromide organized also demonstrative plots in which soil disinfection was carried out by bromide.

The plots whose soil wasn't disinfected and on which normal plants seedbeds were planted were considered as witness – variants.

In accordance with those said up-above, the experimental variants were:

Variant	code
Metham Sodium grafted plants	MSG
Metham Sodium standard plants	MSS
Dazomet grafted plants	DG
Dazomet standard plants	DS
Non treated control grafted plants	NTCG
Non treated control standard plants	NTCS
Methyl Bromide standard plants	MBS
Steam standard plants	SS

The demonstrative plots were organized in the 2nd cycle 2003 and the 1st cycle 2003-2004.The obtained results during the second cycle 2003 have been presented in Progress Report 1/2004 and contain the period between July 2003-December 2004.

According to those presented, the demonstrative plots-1st cycle 2004 were (table7) :

Table 7. Demonstrative plots

	Demonstrative plot (m^2)								Total (m^2)
	MSG	MSS	DG	DS	NTCG	NTCS	MBS	SS	
TOMATOES									
S.C. Codlea S.A.	800	800	800	800		800			4000
S.C. Brasov S.A		800			800	800			2400
S.C. Berser S.A.					70		70		140
S.C. Pipera S.A.					400	400			
S.C. Leoser S.A.		1000			1000	1000	1000		4000
TOTAL	**800**	**2600**	**800**	**800**	**2270**	**3000**	**1070**		**11340**
CUCUMBERS									
S.C. Codlea S.A.	1000	1000	1000	1000	1000				5000
S.C. Brasov S.A		1000	1000		1000	1000			4000
R.A. Pipera				1075	1075				2150
S.C. Isalnita S.A.		633		316		316			1265
S.C. Berser S.A.					1000			1000	2000
S.C. Leoser S.A.					1000	1000			2000
S.C.Leader International S.A .		1000		1000		1000	1000		
TOTAL	**1000**	**2633**	**2000**	**2391**	**5075**	**2316**		1000	**16415**

The dates concerning the soil disinfection are present in table 8.

Table 8. Soil disinfectation

Location	Metham Sodium	Dazomet	Methil Bromide	Steam
S.C. Codlea S.A.	02.02.2004	07.02.2004		
S.C. Brasov S.A	05.12.2003	07.12.2003		
R.A. Pipera		05.01.2004		
S.C. Isalnita S.A.	03.04.2004	07.04.2004		
S.C. Berser S.A.			20.01.2004	11.02.2004
S.C. Leoser S.A.	25.01.2004		25.01.2004	
S.C.Leader International S.A	01.03.2004	08.03.2004	08.03.2004	

4. PROTOCOL RECORDED RESULTS

According with the set working schedule, observations and determinations during the growth and development in the 1st production cycle, targets were:

- the organization of demonstrative plots
- soil maintenance
- the plants replaced within the first 15 days after planting
- the identification of the sick plants
- identifying nematodes
- temperature (presented in chapter 3.4.1.)
- obtained production
- economical analyse

4.1. THE ORGANIZATION OF DEMONSTRATIVE PLOTS

The tomato demonstrative culture was planted in January (S.C.Brasov S.A.), February (S.C. Berser S.A., S.C. Leoser S.A.), March (S.C. Codlea S.A.) 2004 using grafted plants from Italy and standard plants realized in there greenhouses

The cucumber demonstrative culture was planted in December (S.C. Brasov S.A., S.C. Leoser S.A.), January (S.C. Pipera S.A.), February (S.C. Leoser S.A., S.C. Pipera S.A., S.C.Berser S.A.), March (S.C. Codlea S.A.), April (S.C.Isalnita S.A.)2004, (table 9):

Table 9. N^0 of transplanted plants (date of transplanting)

TOMATOES

VARIANT	SPECIFICA-TIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	Nr.pl.	880						
	date	**01.03**						
MSS	Nr.pl.	440	1680		1260			
	date	**15.03**	**07.01**		**20.02**			
DG	Nr.pl.	1320						
	date	**01.03**						
DS	Nr.pl.	2200						
	date	**15.03**						
NTCG	Nr.pl.		960	420	615	1120		
	date		**27.01**	**15.02**	**20.02**	**25.01**		
NTCS	Nr.pl.	440	1680		2435	1120		
	date	**15.03**	**07.01**		**19.02**	**25.01**		
MBS	Nr.pl.			420	1260			
	date			**15.02**	**20.02**			

CUCUMBERS

MSG	Nr. pl.	720						
	date	**01.03**						
MSS	Nr. pl.	360	1600				1470	2400
	date	**15.03**	**30.12**				**01.05**	**05.04**
DG	Nr. pl.	1080	1600					
	date	**01.03**	**30.12**					
DS	Nr. pl.	1800				2024	735	2400
	date	**15.03**				**28.01**	**01.05**	**06.04**
NTCG	Nr. pl.		1600	960	2440	1726		
	date		**30.12**	**15.02**	**29.02**	**26.02**		
NTCS	Nr. pl.	360	1600		2435		735	2400
	date	**15.03**	**23.12**		**24.12**		**01.05**	**05.04**
MBS	Nr. pl.							2400
	date							**06.04**
SS	Nr. pl.			960				
	date			**15.02**				

The demonstrative plots were organized with tomato plants:

- Shirley F1 – Berser , Leoser, Codlea
- Cindel F1 – Pipera
- Fado F1 - Brasov

The demonstrative plots were organized with cucumber plants:

- Pyralis F1 – Brasov , Leoser, Berser
- Long John F1 – Codlea
- Nevada F1 – Pipera
- Mathilde F1 – Isalnita , Leader

4.2.Soil maintenance (weeds eradication)

A reduction of the number of weeds was observed, when the soil was treated with Metham Sodium (table 10).

Table 10. Weeds eradication

TOMATOES

VARI-ANT	SPECIFICATIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	Nr.weeds kg/m2 date	570 0.500 21.04.						
MSS	Nr.weeds kg/m2 date	280 0.500 21.04.	102 1.170 23.03.		1188 2.140 30.03.			
DG	Nr.weeds kg/m2 date	870 1.000 21.04.						
DS	Nr.weeds kg/m2 date	1500 1.800 21.04.						
NTCG	Nr.weeds kg/m2 date		28 0.488 23.03.	988 1.410 22.03.	1839 3.330 30.03.	35 0.550 20.02.		
NTCS	Nr.weeds kg/m2 date	380 0.700 21.04.	858 3.905 23.03.		1545 1.990 30.03.	50 0.510 20.02.		
MBS	Nr.weeds kg/m2 date			846 1.430 22.03.	1392 2.280 30.03.			

CUCUMBERS

VARI-ANT	SPECIFICATIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	Nr.weeds kg/m2 data	500 1.500 20.04.						
MSS	Nr.weeds kg/m2 date	230 0.500 20.04.	158 2.200 25.03.				84 2.200 04.06.	200 2.150 07.06.
DG	Nr.weeds kg/m2 date	785 2.140 20.04.	158 1.300. 25.03.					
DS	Nr.weeds kg/m2 date	1280 2.020 20.04.				93 3.400 22.03.	55 2.200 04.06.	560 1.800 07.06.
NTCG	Nr.weeds kg/m2 date		894 3.600 25.03.	254 1.400 24.03.	716 3.800 12.04.	875 4.400 10.04.		
NTCS	Nr.weeds kg/m2 date	340 0.700 20.04.	963 4.300 25.03.		301 1.300 14.02.		211 4.700 04.06.	981 3.600 07.06.
MBS	Nr.weeds kg/m2 date							520 2.100 07.06.
SS	Nr.weeds kg/m2 date			53 0.600 24.03.				

4.3.The plants replaced within the first 15 days planting

In the first 15 days since the plantation, a small number of replaced plants was recorded especially due to mechanical causes and the attack of pathogene agents (table 11).

Table 11. N° of replanted plants by 15 days after the transplant

TOMATOES

VARIANT	SPECIFICATION	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	nr.pl. reason	0						
MSS	nr.pl. reason	5 virosis*	0		12 accidental breaking			
DG	nr.pl. reason	0						
DS	nr.pl. reason	7 Pythium*						
NTCG	nr.pl. reason		0	4 accidental breaking	6 accidental breaking	0		
NTCS	nr.pl. reason	2 Pythium*	8 Phytophtora parasitica*		24 accidental breaking	0		
MBS	nr.pl. reason			6 accidental breaking	13 accidental breaking			

CUCUMBERS

VARIANT	SPECIFICATION	GREENHOUSE						
		Codlea	**Brasov**	**Berser**	**Leoser**	**Pipera**	**Isalnita**	**Leader**
MSS	nr.pl. reason	0	12 Fusarium sp.*				5 accidental breaking	0
DG	nr.pl. reason	4 Accidental breaking	10 accidental breaking					
DS	nr.pl. reason	1 accidental breaking				14 accidental breaking	0	1 accidental breaking
NTCG	nr.pl. reason		5 accidental breaking	15 Fusarium sp.*	0	0		
NTCS	nr.pl. reason	3 Botrytis sp.**	52 Fusarium sp.*		0		8 Fusarium sp.*	18 Fusarium sp.*
MBS	nr.pl. reason							0
SS	nr.pl. reason			3 accidental breaking				

* - vascular disease
** - foliar disease

4.4.The identification of the sick plants

Determinating sick plants has lead to the identification of pathogene agents that provoked the plants death or drying. (table 12).

Table 12. Disease identification

TOMATOES

VARIANT	SPECIFI-CATIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	nr.pl. reason	0						
MSS	nr.pl. reason	5 Botrytis sp.**	19 Botrytis sp.**		8 Botrytis sp.**			
	nr.pl. reason		80 Pyrenocheta L.*					
DG	nr.pl. reason	2 Botrytis sp.**						
DS	nr.pl. reason	4 Botrytis sp.**						
NTCG	nr.pl. reason		1 Botrytis sp.**	1 virosis*	1 Botrytis sp.**	3 Botrytis sp.**		
NTCS	nr.pl. reason	1 Botrytis sp.**	25 Botrytis sp.**		16 Botrytis sp.**	10 Botrytis sp.**		
	nr.pl. reason		62 Phytophtora parasitica*					
MBS	nr.pl. reason			3 Botrytis sp.**	5 Botrytis sp.**			

CUCUMBERS

VARIANT	SPECIFICATIONS	GREENHOUSE						
		Codlea	**Brasov**	**Berser**	**Leoser**	**Pipera**	**Isalnita**	**Leader**
MSS	nr.pl. reason	4 Sphaeroteca fulginea**	60 Sphaeroteca fulginea**					0
DG	nr.pl. reason	57 Sphaeroteca fulginea**	49 Sphaeroteca fulginea**					
DS	nr.pl. reason	120 Sphaeroteca fulginea**				6 Fusarium*	9 Pythium*	3 Pythium*
NTCG	nr.pl. reason		144 Sphaeroteca fulginea**	37 Sphaeroteca fulginea**	26 Fusarium*			
NTCS	nr.pl. reason	15 Sphaeroteca fulginea**	70 Sphaeroteca fulginea**		5 Fusarium*		13 Pythium*	10 Pythium
MBS	nr.pl. reason							0
SS	nr.pl. reason			7 Sphaeroteca fulginea**				

* vascular disease ** foliar disease

4.5.Identifying nematodes

At the end of the 1st production cycle, the infestation degree of nematodes was determined, depending on the organized sorts (table 13).

Table 13. Nematode root galling (after Lamberti (1971) and Di Vito (1979)

TOMATOES

VARIANT	SPECIFICATIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	Nr.pl. root index	0 0						
MSS	Nr.pl. root index	0 0	0 0		0 0			
DG	Nr.pl. root index	0 0						
DS	Nr.pl. root index	0 0						
NTCG	Nr.pl. root index		48 1.6	18 1.2	14 1.2	5 0.9		
NTCS	Nr.pl. root index	0 0	18 1.9		20 3.1	23 2.7		
MBS	Nr.pl. root index			0 0	0 0			

CUCUMBERS

MSG	Nr.pl. root index	0 0						
MSS	Nr.pl. root index	0 0	0 0				0 0	0 0
DG	Nr.pl. root index	0 0	21 0.6					
DS	Nr.pl. root index	0 0				0 0	9 1.1	3 1.5
NTCG	Nr.pl. root index		112 1.4	61 1.3	108 1.3	0 0		
NTCS	Nr.pl. root index	0 0	272 3.6		65 3.4		13 3.1	16 3.6
MBS	Nr.pl root index							0 0
SS	Nr.pl. root index			3 0.3				

The Meloidogyne spp. pest was absent; the plants did not manifest any typical attach symptoms(tomatoes at S.C.Codlea S.A. and respectively,cucumbers at S.C.Codlea S.A and S.C.Pipera S.A.

The nematodes was absent in MSS treatement (tomatoes and cucumbers) in all analyzed greenhouses.

It has been recorded a significant decrease of plants attacked by nematodes in the sort whose soil was disinfected, especially in the treatment with Metham Sodium and grafted plants.

4.6.Obtained production

The achieved production was between 83.25 tones/ha (NTCG-S.C.Brasov S.A.) and 150 tones/ha (NTCS, MBS,MSS–S.C.Leoser S.A.) at tomatoes crops and 142 tones/ha (NTCG- S.C.Leoser S.A.) and 195 tones/ha (DS-S.C.Isalnita S.A.) at cucumbers crops, respectively (table 14).

Table 14. Obtained production

TOMATOES

VARIANT	SPECIFICATIONS	GREENHOUSE						
		Codlea	Brasov	Berser	Leoser	Pipera	Isalnita	Leader
MSG	t/ha	105						
MSS	t/ha	112	109		150			
DG	t/ha	102						
DS	t/ha	100						
NTCG	t/ha		83	70	120	135		
NTCS	t/ha	98	94		150	105		
MBS	t/ha			70	150			

CUCUMBERS

MSS	t/ha	175	164				170	75
DG	t/ha	182	180					
DS	t/ha	172				166	195	62
NTCG	t/ha		170	148	142	159		
NTCS	t/ha	156	148		160		180	56
MBS	t/ha							74
SS	t/ha			162				

4. 7. Economical date

We have in view economically dates and financial results on demonstrative plots in the frame greenhouses Brasov (table 15).

Table 15.1. Financial results

Tomatoes

Specification	S.C. Brasov S.A.			S.C. Leoser S.A			
	NTCS*	NTCG**	MSS*	NTCS***	NTCG***	MBS***	MSS***
Staff costs	1581	1581	1581	1500	1500	1500	1500
Salary taxes	513	513	513	487	487	487	487
Material expense	7984	4348	9761	8001	5503	11827	10455
Thirds	995	995	995	945	945	945	945
Energy expense	29602	29602	29602	26642	26642	26642	26642
Paying off	368	368	368	368	368	368	368
Rent	10	10	10	10	10	10	10
Indirect expense	692	692	692	660	660	660	660
Stok in trade	20	20	20	18	18	18	18
Total expenditure	41765	38129	43542	39926	36290	42614	41242
Total income	37140	42286	48775	80250	64200	80250	80250
Financial results	-4625	+4157	+5233	+39923	+27910	+37636	+39008

Vegetation period : * 174 days
** 154 days
*** 133 days

Table 15.2. Financial results

Cucumbers

Specification	S.C. Brasov S.A.				S.C. Leoser S.A	
	NTCG*	DG*	NTCS*	MSS*	NTCS*	NTCG**
Staff costs	7921	7921	7921	7921	8130	8130
Salary taxes	2573	2573	2573	2573	2638	2638
Material expense	20800	20800	13718	13718	13740	20799
Thirds	1595	1595	1595	1595	1595	1595
Energy expense	43412	43412	43412	43412	34730	32993
Paying off	366	366	366	366	366	366
Rent	10	10	10	10	10	10
Indirect expense	641	641	641	641	580	580
Stok in trade	26464	28275	26464	27780	26464	20000
Total expenditure	114640	116451	107558	108874	87957	86837
Total income	100933	106870	93966	97371	99680	88466
Financial results	-13707	-9581	-13562	-11503	+11723	+1625

Vegetation period : * 178 days
** 122 days

Date of the report

25.10 2004

Signature

Marian Boogoescu Ph. d.

Distribution

Mr. Victor Koloskov

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Mss. Rodica Moorohoi