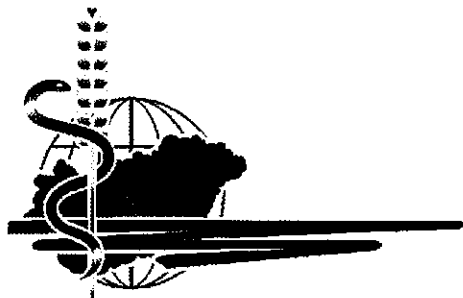


Code number: H/10/CELLADAM/0722/2

**Agricultural Office of County Fejér
Plant Protection & Soil Conservation Directorate**



**REPORT ON
PLANT CONDITIONER TRIAL**

2010



Product: Floracell

Plant: Peach

**Title of trial: Examination of Floracell plant conditioner product
in peach**

1. Product:

1.1. Name: **Floracell**

1.2. Active ingredient, composition:

Name(s) of the product(s)	Floracell
Composition	1mg/ml celladam

1.3. Manufacturer, trading company, client: **Celladam Group (Kovács Ádám Works)**

2. Plant:

2.1. Species (English): **Peach** Species (Latin): **Persica vulgaris**
 Variety: **Mirelle**

2.2 Date and mode of sowing (planting): **1998.**

2.3. Date and mode of harvest: **12/08/2010**

3. Experimental site:

3.1. County, location, farm: **Agricultural Office of County Fejér Plant Protection & Soil Conservation Directorate, Székesfehérvár-Csala**

3.2. Soil type: **Calcic chernozem**

3.3. Physical soil type: **loam**
K_A: 40
pH_{KCl}: 7,6
organic matter content: 3,2

3.4. Assessment of nutrient supply (data can be seen in attachment): **Nutrient supply of the trial area can be said to be good, both in its macro- and in micro elements.**

3.5. Volume and mode of nutrient supply (kg/ha):

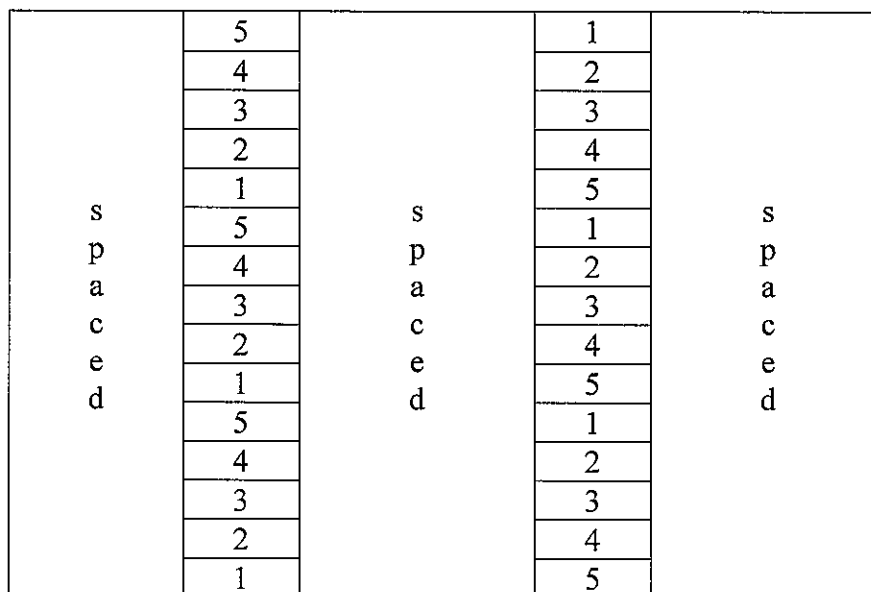
	N	P₂O₅	K₂O
basic	0	0	0
in spring	50	0	0
summary	50	0	0
total in two previous years	100	0	0
manure in three years	year: -		volume: -

4. Experimental conditions

4.1. Plot size: **10 treesplot**

4.2. Replicates: **6**

4.3. Lay-out (blocking out):



4.4. Treatment data:

Treatments	Dose l/ha	Date	Mode
1. Untreated control	-	10/07/2010; (BBCH 75; 50% of total fruit size)	Foliar spraying
2. Amalgerol Prémium Standard control	5,0		
3. Floracell	0,6		
4. Floracell	1,0		
5. Floracell	1,2		

4.5. Application technological data:

Date	Equipment	Pressure (bar)	Handling
10/07/2010	CPC 25 high pressured motorized knapsack sprayer	15	good

4.6. Meteorological data at the time of application:

Date	Temperature	Wind	Rain in a day	
	°C	m/s	Time after the treatment (hours)	Amount (mm)
10/07/2010	20,3	0,3	-	-

4.7 Phytotoxicity: **There was no phytotoxicity observed.**

5. Plant protection and other cultural works: **Professional rotation application of contact and systemic pesticides has happened. The same plant protection was done on both the control and the treated area.**
6. Weather conditions during vegetation period: (data in attachment):

Month	Mean temperature (°C)	Rain (mm)	Number of rainy days
April	12,9	64	7
May	17,3	176	18
June	21,5	211	12
July	26,0	52	5
August	22,5	137	12
September	16,2	149	13

7. Assessment of the trial results, technical proposals (data can be seen in attached tables):

The trial was set in a peach orchard near Székesfehérvár.

Orchard is comparatively young in a good condition. There is a Calcic chernozem type of soil on the trial area with a good nutrient supply. Plant protection of the orchard was done professionally; contact and systemic pesticides were alternated. Weed control was done mechanically. The treated and the untreated plots received the same treatment.

Yield measuring was done at the harvest (average of the 10 trees per plot), and sugar- and acid content of the samples was determined in the laboratory.

Results were processed on the basis of F-probe. On the basis of the results can be seen, that the 0,6; 1,0 and 1,2 l/ha dosages of Floracell increased the yield with a 3,6%-3,8% comparing to the control. According to the calculations this value is proved to be significant.

Also in case of the 1,0 and 1,2 l/ha dosage of Floracell sugar content increase was on significant level.

In case of the 1,0 l/ha dosage the increase is more reliable, the correlation between the sugar content and the application is proved also on P5% level. Positive effect can be detected on P10% level in case of the 1,2 l/ha dosage using.

Acidity of the fruits decreased a little; the given value was a little lower than the confidence limit on plots which were treated with the 1,0 and the 1,2 l/ha dosages of the examined product, it is significant.

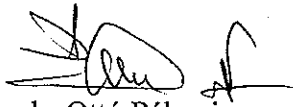
Phytotoxic effect:

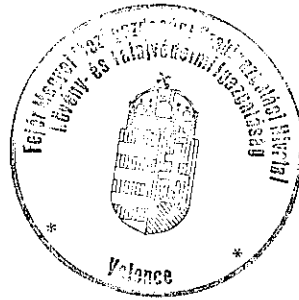
There were not phytotoxic symptoms observed.

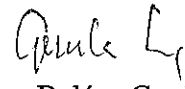
Suggestion:

The 1,0 l/ha and the 1,2 l/ha dose of the Floracell product is successfully used for increasing of the yield and improving the quality of the fruits in peach growing. Product should be applied in the fruit growing period, in 600 l/ha spray volume, in tiny droppless.

Velence, 04/October/2010


dr. Ottó Pálmai
Director




Balázs Gyulai
Study director

Attachment 1

Yield (t/ha)

Treatment	Dosage l/ha	Replicate						Average
		1.	2.	3.	4.	5.	6.	
1. Untreated	-	18,5	20,3	19,6	20,8	17,8	19,5	19,42
2. Amalgerol premium Standard control	5,0	18,2	21,1	17,8	21,5	20,1	18,9	19,60
3. Floracell	0,6	20,6	19,5	20,8	18,4	21,0	19,8	19,82
4. Floracell	1,0	19,6	19,8	19,9	20,3	20	19,8	19,90
5. Floracell	1,2	19,4	19	20,2	21,3	21	18,8	19,95

Sugar content (% m/m)

Treatment	Dosage l/ha	Replicate						Average
		1.	2.	3.	4.	5.	6.	
1. Untreated	-	10,07	11,12	10,87	10,80	11,24	11,32	10,90
2. Amalgerol premium Standard control	5,0	11,18	11,10	11,10	10,87	11,31	11,33	11,15
3. Floracell	0,6	11,22	11,07	11,24	10,96	11,42	11,27	11,20
4. Floracell	1,0	12,01	11,96	10,94	12,12	10,87	11,31	11,54
5. Floracell	1,2	12,03	11,66	10,79	12,08	10,94	11,02	11,42

Acid content (g/100g)

Treatment	Dosage l/ha	Replicate						Average
		1.	2.	3.	4.	5.	6.	
1. Untreated	-	0,54	0,46	0,58	0,42	0,52	0,48	0,50
2. Amalgerol premium Standard control	5,0	0,62	0,71	0,39	0,44	0,53	0,51	0,53
3. Floracell	0,6	0,44	0,48	0,52	0,36	0,41	0,46	0,45
4. Floracell	1,0	0,40	0,51	0,52	0,36	0,38	0,40	0,43
5. Floracell	1,2	0,42	0,50	0,51	0,38	0,38	0,40	0,43

**Results of soil examinations
(Székesfehérvár, 10/07/2010)**

Measured parameter		Sample I.
pH _{KCl}		7,60
Texture K _A		40,00
Salt content %		0,02
CaCO ₃ %		14,20
Organic matter content%		3,2
(NO ₂ +NO ₃)-N	mg/kg	12,90
P ₂ O ₅	mg/kg	209,00
K ₂ O	mg/kg	230,00
Na	mg/kg	50,00
Mg	mg/kg	145,00
SO ₄ -S	mg/kg	11,00
Mn	mg/kg	36,00
Zn	mg/kg	2,40
Cu	mg/kg	2,30

Yield (t/h)

TABLE OF DATA

No.	Treatments	Dose l/ha	Replicates						Average t/ha	Control 100%
			I	II	III	IV	V	VI		
1.	Untreated control	-	14,1	14,4	11,9	12,2	13,4	13,7	13,3	100,0
2.	Amalgerol Prémium (St. control)	5,0	14,0	14,2	12,7	12,8	13,5	13,8	13,5	101,6
3.	Floracell	0,6	14,2	14,1	13,6	13,1	13,6	14,0	13,8	103,6
4.	Floracell	1,0	14,1	14,6	12,9	12,6	14,4	14,1	13,8	103,8
5.	Floracell	1,2	14,0	13,6	12,9	13,9	14,5	13,8	13,8	103,8

ANALYSIS OF VARIANCE

Factors	SQ	FG	MQ	F-value		P=	SzD
				calculated	table		
All	14,03						
Replicate	9,11	5			2,25	10%	0,43
Treatment	1,22	4	0,304	1,64	2,87	5%	0,52
Error	3,70	20	0,185		4,43	1%	0,71

F-test: No signifikant

Yield (t/h)

Date of evaluation: 12/08/2010

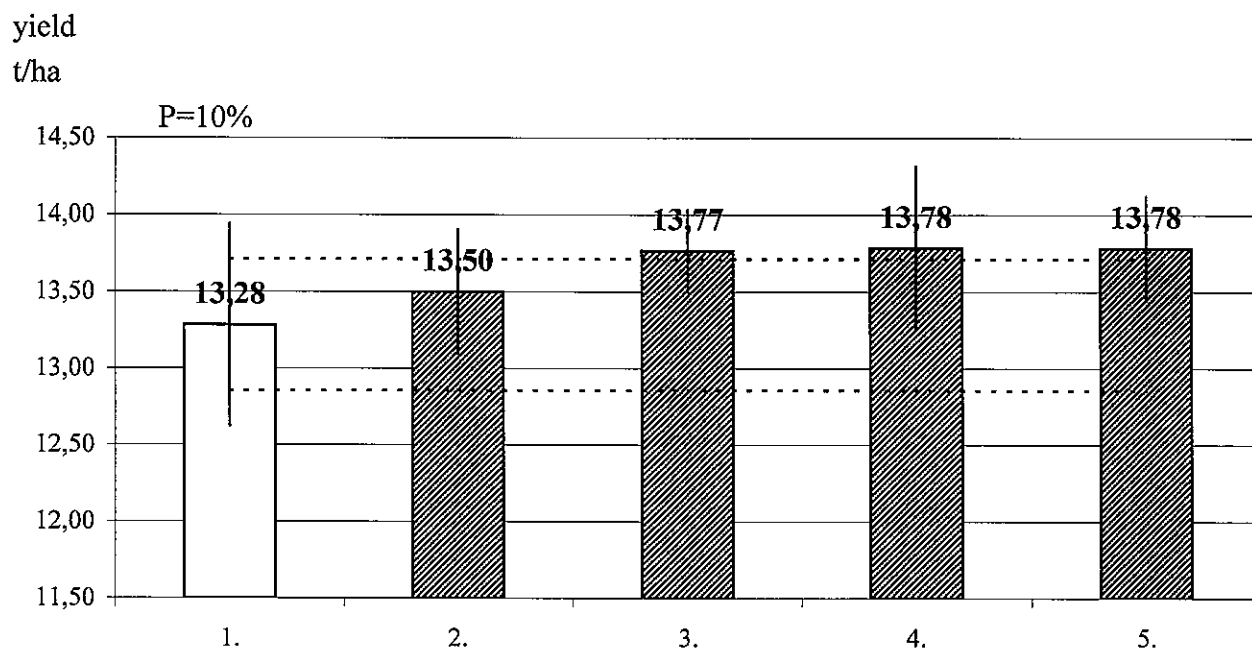
Mode of evaluation: harvested of whole plot

TABLE OF RESULTS

No.	Treatments	Dose l/ha	Date of treatments	Stage of fenologi	Average t/ha	Control 100%
1.	Untreated control	-	-	-	13,28	100,0
2.	Amalgerol Prémium (St. control)	5,0	10/07/2010	BBCH 75	13,50	101,6
3.	Floracell	0,6	10/07/2010	BBCH 75	13,77	103,6 *
4.	Floracell	1,0	10/07/2010	BBCH 75	13,78	103,8 *
5.	Floracell	1,2	10/07/2010	BBCH 75	13,78	103,8 *
<i>SzD</i> 10% = *					0,43	3,2
<i>SzD</i> 5% = **					0,52	3,9
<i>SzD</i> 1% = ***					0,71	5,3

CV= 3,2 %

Yield (t/h)



Sugar content (% m/m)

TABLE OF DATA

No.	Treatments	Dose l/ha	Replicates						Average % m/m	Control 100%
			I	II	III	IV	V	VI		
1.	Untreated control	-	10,07	11,12	10,87	10,8	11,24	11,32	10,90	100,0
2.	Amalgerol Prémium (St. control)	5,0	11,18	11,1	11,1	10,87	11,31	11,33	11,15	102,2
3.	Floracell	0,6	11,22	11,07	11,24	10,96	11,42	11,27	11,20	102,7
4.	Floracell	1,0	12,01	11,96	10,94	12,12	10,87	11,31	11,54	105,8
5.	Floracell	1,2	12,03	11,66	10,79	12,08	10,94	11,02	11,42	104,7

ANALYSIS OF VARIANCE

Factors	SQ	FG	MQ	F-value		P=	SzD
				calculated	table		
All	6,02						
Replicate	0,55	5			2,25	10%	0,45
Treatment	1,46	4	0,365	1,82	2,87	5%	0,54
Error	4,01	20	0,200		4,43	1%	0,74

F-test: No signifkant

Sugar content (% m/m)

Date of evaluation: 19/08/2010

Mode of evaluation: 1000 g average sample/plot

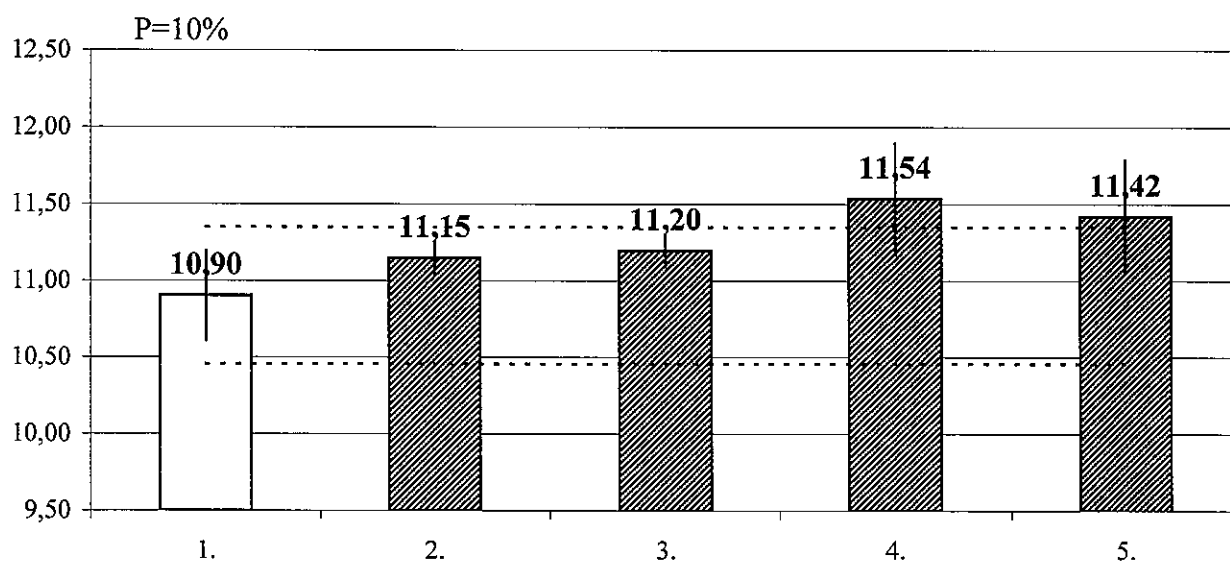
TABLE OF RESULTS

No.	Treatments	Dose l/ha	Date of treatments	Stage of fenologi	Average % m/m	Control 100%
1.	Untreated control	-	-	-	10,90	100,0
2.	Amalgerol Prémium (St. control)	5,0	10/07/2010	BBCH 75	11,15	102,2
3.	Floracell	0,6	10/07/2010	BBCH 75	11,20	102,7
4.	Floracell	1,0	10/07/2010	BBCH 75	11,54	105,8 **
5.	Floracell	1,2	10/07/2010	BBCH 75	11,42	104,7 *
<i>SzD</i> 10% = *					0,45	4,1
<i>SzD</i> 5% = **					0,54	4,9
<i>SzD</i> 1% = ***					0,74	6,7

CV= 4,0 %

Sugar content (% m/m)

sugar content
% m/m



Acid content (g/100g)

TABLE OF DATA

No.	Treatments	Dose l/ha	Replicates						Average g/100 g	Control 100%
			I	II	III	IV	V	VI		
1.	Untreated control	-	0,54	0,46	0,58	0,42	0,52	0,48	0,50	100,0
2.	Amalgerol Prémium (St. control)	5,0	0,62	0,71	0,39	0,44	0,53	0,51	0,53	106,7
3.	Floracell	0,6	0,44	0,48	0,52	0,36	0,41	0,46	0,45	89,0
4.	Floracell	1,0	0,4	0,51	0,52	0,36	0,38	0,4	0,43	85,7
5.	Floracell	1,2	0,42	0,5	0,51	0,38	0,38	0,4	0,43	86,3

ANALYSIS OF VARIANCE

Factors	SQ	FG	MQ	F-value		P=	SzD
				calculated	table		
All	0,19						
Replicate	0,06	5			2,25	10%	0,06
Treatment	0,05	4	0,013	3,26	2,87	5%	0,08
Error	0,08	20	0,004		4,43	1%	0,10

F-test: P5% signifikant

Acid content (g/100g)

Date of evaluation: 19/08/2010

Mode of evaluation: 1000 g average sample/plot

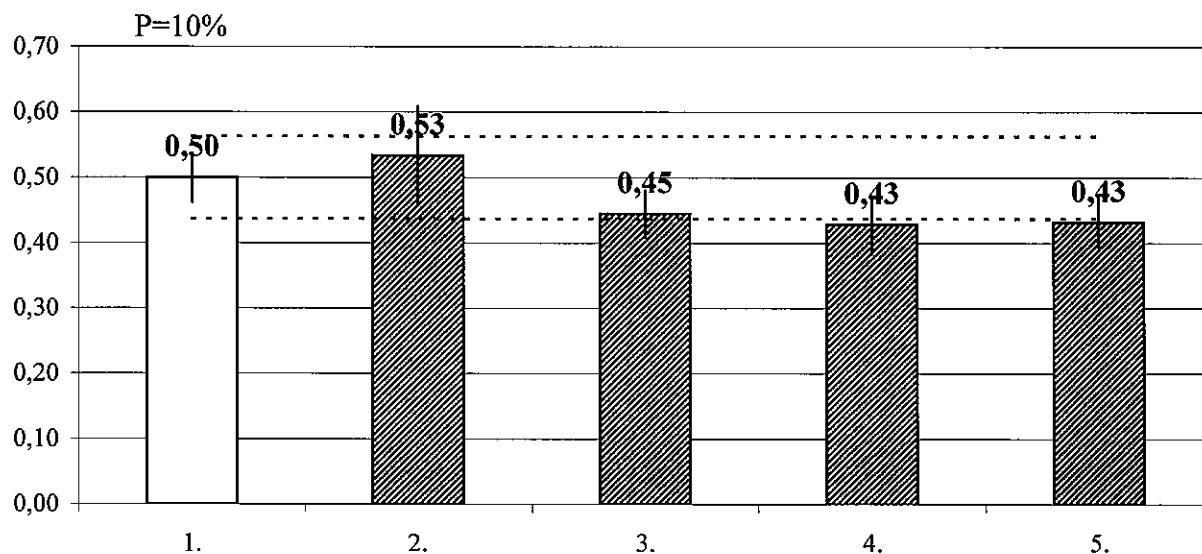
TABLE OF RESULTS

No.	Treatments	Dose l/ha	Date of treatments	Stage of fenologi	Average g/100 g	Control 100%
1.	Untreated control	-	-	-	0,50	100,0
2.	Amalgerol Prémium (St. control)	5,0	10/07/2010	BBCH 75	0,53	106,7
3.	Floracell	0,6	10/07/2010	BBCH 75	0,45	89,0
4.	Floracell	1,0	10/07/2010	BBCH 75	0,43	85,7 *
5.	Floracell	1,2	10/07/2010	BBCH 75	0,43	86,3 *
<i>SzD</i> 10% = *					0,06	12,6
<i>SzD</i> 5% = **					0,08	15,3
<i>SzD</i> 1% = ***					0,10	20,8

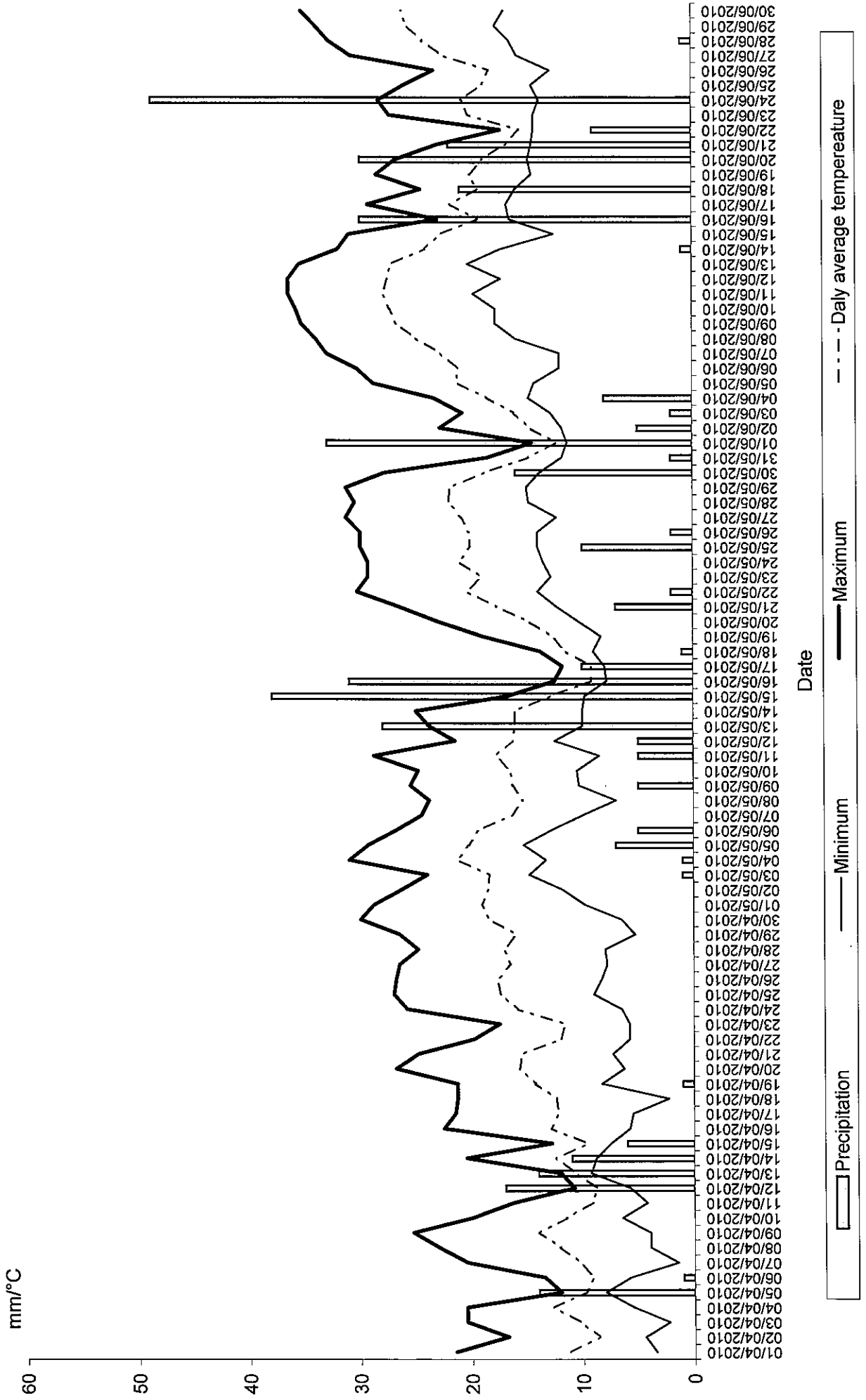
CV= 13,5 %

Acid content (g/100g)

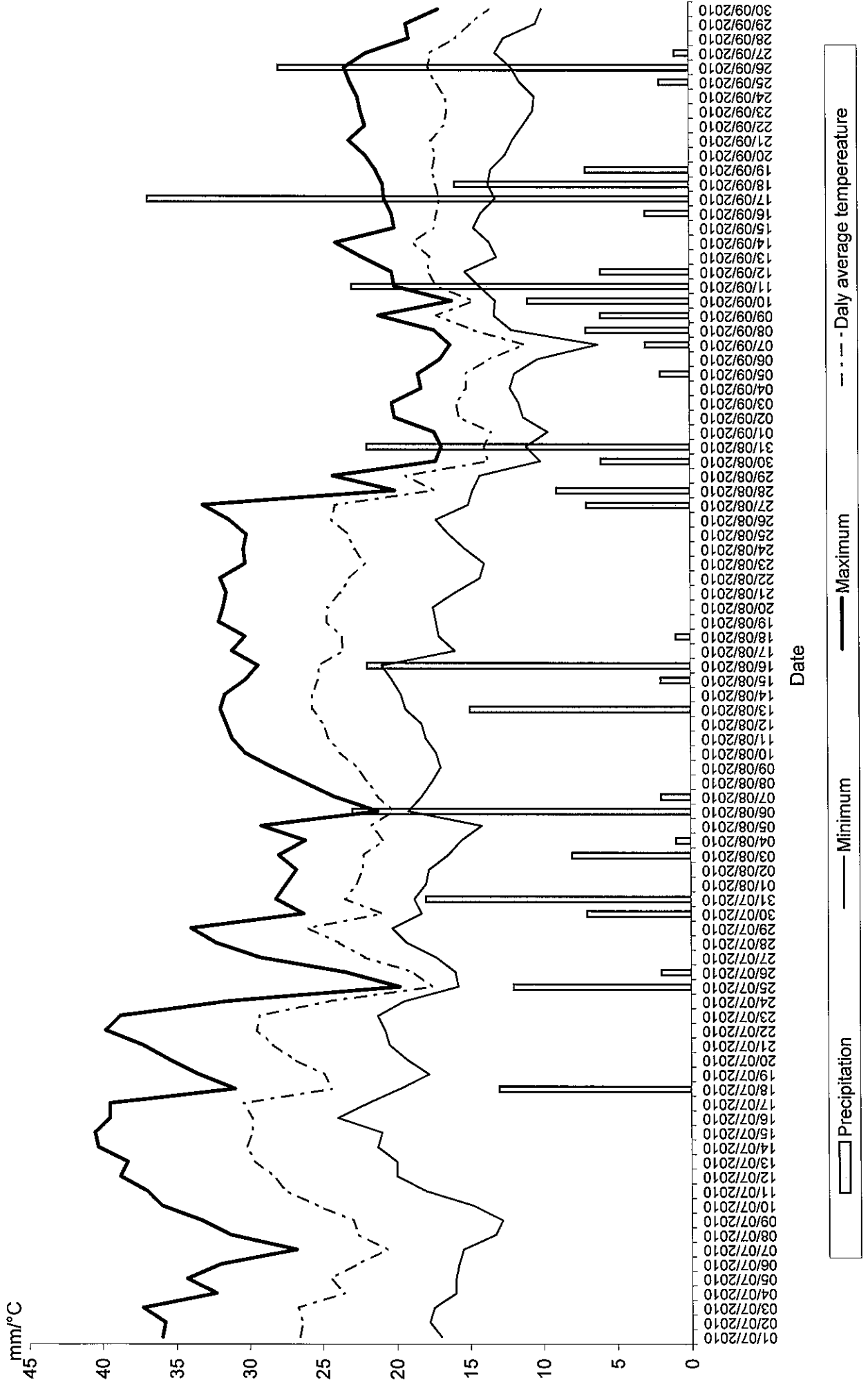
Acid content
g/100 g



Meteorological data
2010/April-June



**Meteorological data
July-September/2010**





**Central Agricultural Office
Coordination and Audit Division**

✉ 1149 Budapest, Tábornok u. 2., Hungary
☎ 1/460-6300; Fax: 1/222-6065

30 March 2010

No.: 02.7/23/10/2010

Subject: Certificate of Official Recognition
of Efficacy Testing Facilities
or Organisations in Hungary

At the request of Agricultural Office of County Fejér, Directorate of Plant Protection and Soil Conservation Pest Diagnostic Laboratory (H-2481 Velence, Ország út 23., Hungary), I, acting as the food chain control body of first instance, make the following

DECISION.

I hereby certify that the testing facility of the Agricultural Office of County Fejér, Directorate of Plant Protection and Soil Conservation, Pest Diagnostic Laboratory located in H-2481 Velence, Ország út 23., Hungary is officially recognised as being competent to carry out efficacy trials in compliance with the principles of Good Experimental Practices (GEP). The above testing facility may carry out efficacy trials of authorization in the following categories of products and cultivation in Hungary:

- product categories: herbicides, fungicides, bactericides, zoocides, growth regulators and yield enhancing substances, additives;
- cultivation categories: field crops, vegetables, fruits, grapevines, ornamental plants, forest, public place, others.

This certificate is valid for 2 years from its entry into force.

No further complaint shall be lodged against the present decision through state administration. With reference to infringement of law, judicial review of the decision may be requested. Within 30 days of the communication of the decision a complaint may be lodged against it, addressed to the head of Budapest Court but submitted to the authority having issued the decision of first instance (Central Agricultural Office Coordination and Audit Division) or sent to the same body by registered mail.

Submission of the complaint has no delaying force on the implementation of this decision.

R E A S O N

According to Article 22 paragraph (5) of the *Decree 89/2004 (V. 15.) FVM on the authorization of placing on the market and use, as well as on the packaging, labelling, storage and transport of plant protection products (hereinafter: Ministerial Decree)*, the Central Agricultural Office made an official inspection in the above testing facility and concluded that the Agricultural Office of County Fejér, Directorate of Plant Protection and Soil Conservation, Pest Diagnostic Laboratory meets the requirements concerning the efficacy trials specified in the Ministerial Decree. Statements made during the local inspection are reported in the protocol No. 02.7/23/4/2010.

Validity of this certificate is determined according to Article 22 paragraph (6) of the Ministerial Decree.

The deadline of the administrative procedure is 14 May 2010.

I call your attention that the present certification is without prejudice to either the licences concerning the operation/follow-up of activity laid down in other provisions of legislation or the obligation for obtaining them.

Furthermore I call your attention that you are obliged to notify the Central Agricultural Office, within 15 days, about any important changes concerning the certified activity of the testing facility.

Respect of the provisions laid down in the legislation on GEP certification and in this Decision shall be randomly controlled by my competent authority according to Article 22 paragraph (9) of the Ministerial Decree.

If during the official inspection it is found that the testing facility does not meet the relevant GEP requirements, the competent authority may suspend the activity related to the category specified in this decision for maximum 2 months or may revoke the GEP-certificate. If during the official inspection it is found that some details are missing in relation to a trial, the competent authority responsible for authorization may exclude the trial, depending on the extent of missing details, from those that may be accepted for authorization.

Acting according to Article 22 paragraph (1) of the Ministerial Decree, I made the present Decision in compliance within my jurisdiction laid down in 13 paragraph (5) and, Article 2 paragraph (3) of *Government Decree 274/2006 (XII. 23.) concerning the establishment and operation of the Agricultural Office.*

I made this decision in compliance with Articles 71 paragraph (1) and Article 72 paragraph (1) of *Act 140 of 2004 on general rules of administrative official procedure and service (hereinafter: Act 140/2004).*

I excluded the possibility of appeal in compliance with Article 39 paragraph (4) point o) of Act 46 of 2008 on food chain and its official control. I provided the possibility of judicial review in compliance with Article 109 paragraph (1) of Act 140/2004 and Article 330 paragraph (2) of Act III of 1952 on Civil Procedure.

on behalf of László Lukács
president

