INTRODUCTION OF THE CHAMBER OF PLANT PROTECTION IN HUNGARY

Ossiach, 27.11.2018.

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president of

Hungarian Chamber of Professionals and Doctors of Plant Protection

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Hungarian Chamber of Professionals and Doctors of Plant Protection

- In Hungary, chambers as **public bodies** have serious importance.
- 1990-2000 – Plant Protection association. Hungarian plant protection engineers wanted a stronger representation. Chamber can only be founded by official law in Hungary.
- **Act No LXXXIV (84.) of 2000** concerning the **Hungarian Chamber of Professionals and Doctors of Plant Protection.**
- There are two main economic chambers and several professional chambers.
- Plant Protection Chamber operates based on the principles of self-governing, as a **public body** of the plant protection engineers and plant doctors in Hungary.
- It is a professional organisation that **organises** and **manages** some public functions related to plant protection engineering activities.

Hungarian Chamber of Professionals and Doctors of Plant Protection

How can farmes use plant production products in Hungary?

- **In Hungary plant protection products are classified into 3 marketing categories**
- I. - **higher** plant protection education
- II. – **medial** or **lower level** plant production education
- III. – free category (for buying and for own use)

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection education system in Hungary?

- **Higher** plant protection education – university, doctors of plant protection MSc or professional of plant protection (2-year postgradual university education with specified input)
- **Medial or lower level** plant production education –technician, skilled worker, 80 hours basical education with final examinations.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Members of the Chamber:

Professionals of **higher** plant protection qualification:

plant protection engineers and **doctors of plant protection.**

- Doctor of Plant Protection MSc (basic university education),
- Professional of Plant Protection (2-year postgradual education),
- Professionals specialized in plant protection: agricultural engineers, horticultural engineers and any other engineers educated in agriculture.
- **Plant protection engineer (old name) = Doctor of Plant Protection (according to the Act No XLVI (46.) 2008 on food chain and its official control).**

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection education system in Hungary?

- **80 hours** basical education with **final examinations.**
- Organized by the Plant Protection Chamber.
- **Professional contect:**

  - elements of plant protection,
  - elements of IPM,
  - use rules of pesticides,
  - plant protection products,
  - basical knowledge of pesticides,
  - basical knowledge of pests and plant production of main crops and fruits

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection education

- Food safety can only be realised with a contribution of **excellently qualified experts.**
- The chamber follows up for the higher plant protection education in Hungary. It is necessary **to ensure** the **highest level** of plant protection education.
- Education of professionals of plant protection or doctors of plant protection should participate only in a system that can guarantee the highest professional level, and which is accepted and supported by the chamber.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection education

- The chamber also performs obligatory **plant protection trainings**.
- Trainings are copulsory every five years (40 hours, 24 hours, 8 hours).
- We also have the right to organize the **trainings** for plant protection experts and producers that is compulsory every five years.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection education

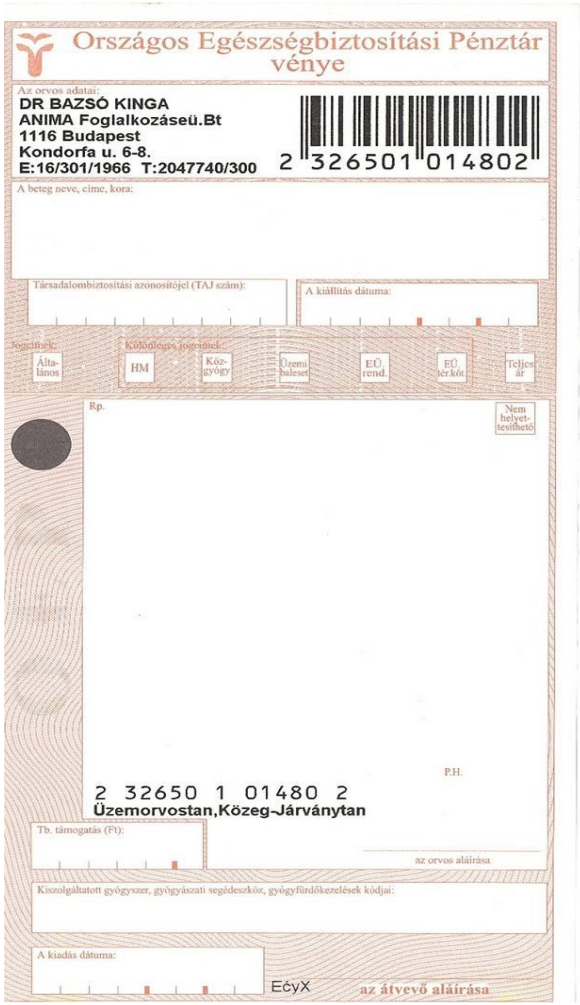
- The chamber have taken initiative steps to create the **occupation doctoral title** „dr.” for doctors of plant protection.
- In our opinion doctors of plant protection are at the similar level as **human doctor** or **veterinarian**.
- The Hungarian Agricultural Ministry support this initiative.

Coherent health system

ÉLŐVILÁG		
HUMAN	ANIMAL	PLANT
EGÉSZSÉGÜGY		
Human health	**Animal health**	**Plant health**
Human medical	Veterinarian	**Doctor of plant protection**
Orvosképzés	Állatorvosképzés	**Növényorvosképzés**
Orvosi magángyakorlat	Magán-állatorvosi tevékenység	**Növényorvosi magángyakorlat**
Prescription	Prescription	**Prescription**
MAGYAR ORVOSI KAMARA	**MAGYAR ÁLLATORVOSI KAMARA**	**MAGYAR NÖVÉNYVÉDŐ MÉRNÖKI NÖVÉNYORVOSI KAMARA**
Orvosi FEOR-08: 2211 ORVOSI asszisztens: 3311	Állatorvos FEOR-08: 2241 Állatorvos asszisztens: 3341	**Növényorvos FEOR-08: 2242** **Növényorvos asszisztens: 3342**

/Kajati I.,1987, módosítva 2000,2010/

Prescription



Országos Egészségbiztosítási Pénztár
vénye

Az orvos adatai:
DR BAZSÓ KINGA
ANIMA Foglalkozáseü.Bt
1116 Budapest
Kondorfa u. 6-8.
E:16/301/1966 T:2047740/300

2 326501 014802

A beteg neve, címe, kora:

Társadalombiztosítási azonosítójel (TAJ szám):

A kiállítás dátuma:

Jogcímek: Általános | Különleges jogcímek: HM | Közgyógy | Üzemi baleset | EÜ rend. | EÜ ker.kód | Teljes ár

Rp.

Nem helyettesíthető

P.H.

2 32650 1 01480 2
Üzemorvostan,Közeg-Járványtan

Tb. támogatás (Ft):

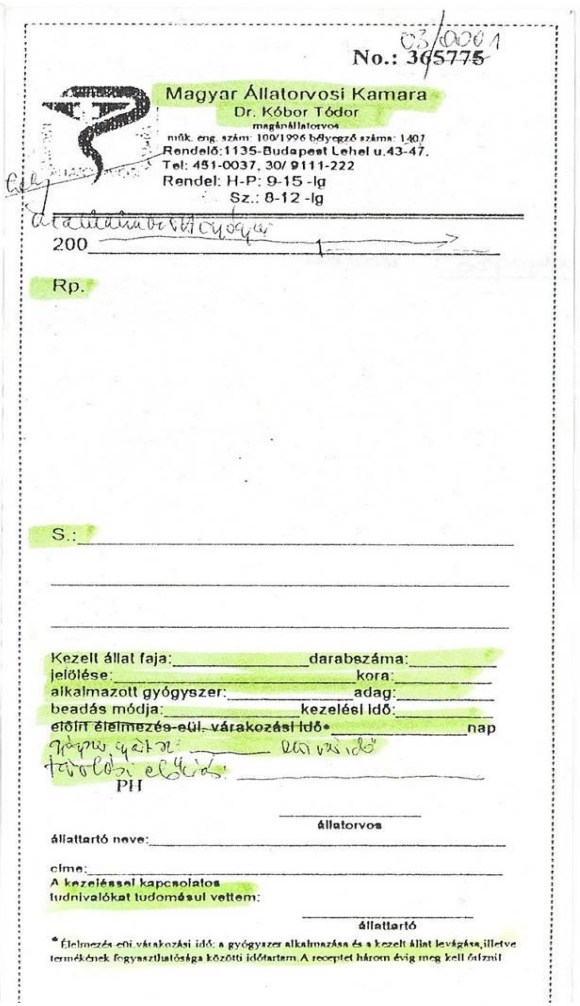
az orvos aláírása

Kiszolgáltatott gyógyszer, gyógyászati segédeszköz, gyógyfürdőkezelések kódjai:

A kiadás dátuma:

EćyX

az átvevő aláírása



No.: 365775

Magyar Állatorvosi Kamara
Dr. Kóbor Tódor
magánállatorvos
műk. eng. szám: 100/1996 bélyegző száma: 1407
Rendelő:1135-Budapest Lehel u.43-47.
Tel: 451-0037, 30/ 9111-222
Rendel: H-P: 9-15 -ig
Sz.: 8-12 -ig

200

Rp.

S.:

Kezelt állat faja: darabszáma:
jelölése: kora:
alkalmazott gyógyszer: adag:
beadás módja: kezelési idő:
előírt élelmezés-ell. várakozási idő* nap

PH

állatorvos

állattartó neve:

címe:

A kezeléssel kapcsolatos tudnivalókat tudomásul vettem:

állattartó

* Élelmezés-eü. várakozási idő: a gyógyszer alkalmazása és a kezelt állat levágása, illetve termékének fogyaszthatósága közötti időtartam. A receptet három évig meg kell őrizni!

1. MELLÉKLET

Magyar Növényvédő Mérnöki és Növényorvosi Kamara
növényvédelmi-növényorvosi vénye
I.-II. forgalmi kategóriájú növényvédő szer vásárlásához

A növényvédő mérnök, növényorvos adatai:

Vény száma:
A
000001

A mezőgazdasági termelő neve, címe:

A növényvédő szer vásárlásával, szállításával, tárolásával és felhasználásával kapcsolatos előírásokat ismerem és tudomásul vettem.

termelő aláírása

Növényvédő szer neve, mennyisége:

Előírt felhasználás, technológia:

DR. KAJATI ISTVÁN NÖVÉNYVÉDŐ MÉRNÖK N.M.N.K. 01002

Érvényes harminc napig!

..... 200..., ...hó .....nap.

növényvédő mérnök, növényorvos aláírása

NTSZ engedély sorszáma:

I.-II. forgalmi kategóriájú növényvédő szert kiadó kereskedelmi forgalmazó neve:

..... 200..., ...hó .....nap.

P.H.

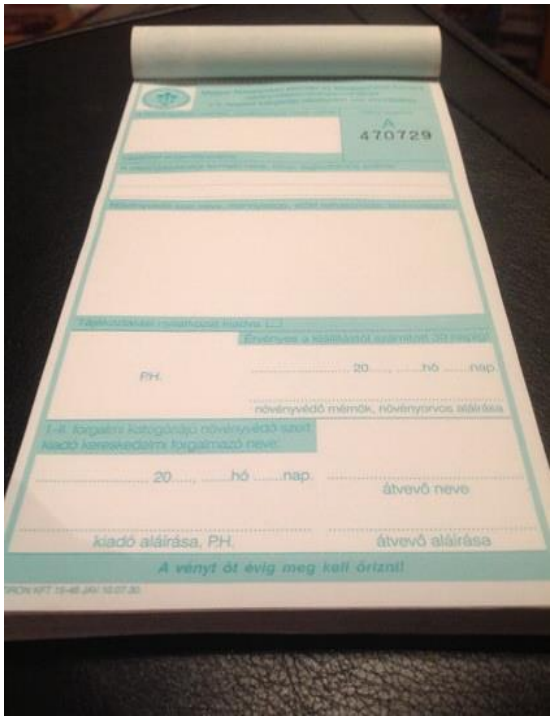
kiadó aláírása

A vényt öt évig meg kell őrizni!

RETIRON KFT 15-46

Prescription by the doctor of plant protection

Prescription may be issued in paper form or electronically.



In paper

Magyar Növényvédő Mérnöki és Növényorvosi Kamara

Növényvédelmi-növényorvosi vénye

I.-II. forgalmi kategóriájú növényvédőszer vásárlásához

Növényvédő mérnök, növényorvos neve és címe:

Gálóczhi-Tömösváry Róbert

4031 Debrecen Kürtös utca 7/B I/1

Vény száma

EV-2017-09-01582

Beváltási kód

09-01582-41723

Engedély szám I./002110/2013

Mezőgazdasági termelő neve címe és regisztrációs száma:

Szolnoki András Egyéni vállalkozó(EV), 1000539832

4026 Debrecen Mester utca 23.

Növényvédő szer neve, dózis, növényvédő szer igény:

1. Reglone Far, 2.00 l/ha, 40.00 l

Kártevők neve, növénykultúra, hektár:

magról kelő egy- és kétszikű gyomok, Vetőmag borsó, 20.00 ha

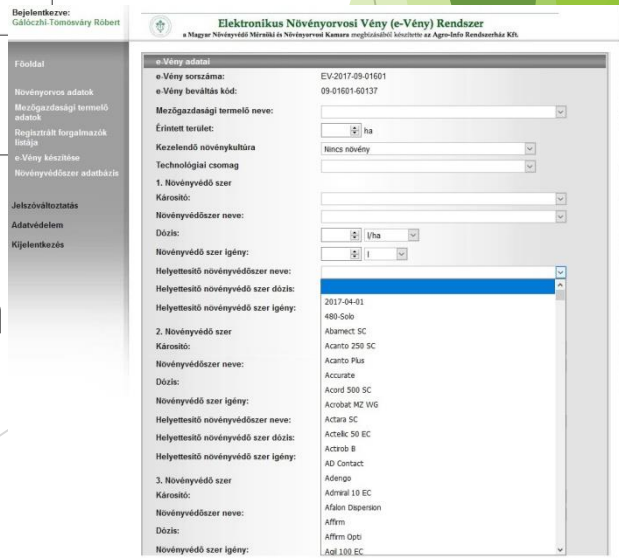
e-Vény kiállítás dátuma: 2017-06-29 10:39:32

A növényvédelmi-növényorvosi vény időbeli hatálya: a kiállítástól számított 30 nap.
A növényvédelmi-növényorvosi vényt öt évig kell megőrizni!
A növényvédőszeres-kezelés időpontját a felhasználó köteles bejelenteni a vény kiállítójának a munka megkezdése előtt 24 órával.

Nyomtatás dátuma: 2017-07-09 16:16:55

fel! használható beváltásra elektronikus Csak

In electoric system



Hungarian Chamber of Professionals and Doctors of Plant Protection

Prescription by the professional of plant protection

- Prescription is a very important document for **safe food production.**
- In Hungary, **end-users** are only entitled to purchase plant production products, marked as category I., **if they have a prescription**.
- It is a very special document. Only **members of the chamber** are entitled **to issue** and **sign** prescriptions.
- Issuing the prescription **gives the right** to buy the plant protection product **marked as category I**. It is the **obligation** of the doctor of plant protection to **give professional management** of the pesticide application. Doctor of plant protection is **responsible for the professional application** of PPP C I.
- A **written contract** between the professional of plant protection and the end-user of plant protection product is obligatory to issue a prescription.

Hungarian Chamber of Professionals and Doctors of Plant Protection

In Hungary chamber membership is **compulsory** to do the following activities:

- **to issue prescription** to purchase plant production products with category I.,
- to manage any activities **using plant protection products with marketing category I.,**
- **obligatory written contract,**
- only members of the Chamber are **entitled to direct the plant protection professional management activity**

Hungarian Chamber of Professionals and Doctors of Plant Protection

- What are the tasks of the Chamber?
- What are the aims?
- The place and role of the Chamber in developing a modern, integrated approach, a consumer and environmentally friendly plant protection and plant health system in Hungary?

Hungarian Chamber of Professionals and Doctors of Plant Protection

General tasks of the Chamber:

- The Chamber **supports the professional faculty** so that it can contribute to a high quality management of agricultural production, and the development of plant health culture in Hungary.

- Actively participates in the preservation of food safety and **plant health safety** in Hungary.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Organisation of the Chamber:

- **National organisation**
  Assambly delagation
  Presidency
  Standing boards

- **Regional organizations**

Hungarian Chamber of Professionals and Doctors of Plant Protection

Regional organisations of the Chamber:

19county organisations,
1 Budapest organisation

Totally:
20 regional organisations.

Hungarian Chamber of Professionals and Doctors of Plant Protection

- In Hungary, **agriculture** is a **strategic sector.**
- **Soil** and the **agricultural products** originated from soil are of extremely great value.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Priority of plant protection and plant health

- **Food safety** of the agricultural products that get to the markets as well as plant health **are very important**.
- In our opinion, **food safety starts at the soil, the plants or products from plants.**
- **Food safety** can only be guaranteed by highly qualified **professionals of plant protection**.
- **The priority role of plant protection is essential.**

IPM IN HUNGARY

Introduction of integrated pest management

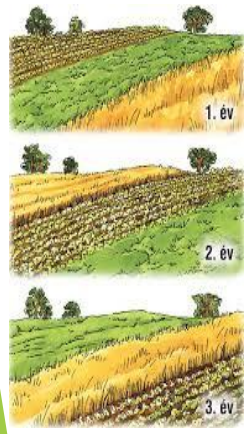
- Application of IPM is very important in Hungary, **with respect** to the mandatory provision on integrated pest management of EU (**in accordance** with **Directive 2009/128/EC**).
- According to the Hungarian plant protection law, **Decree 43/2010 FVM**, introduction of IPM is a fundamental plant protection obligation.

Hungarian Chamber of Professionals and Doctors of Plant Protection

APPLICATION of IPM

Integrated pest management

- Application of IPM is very important, and helps the production of safe food.
- **Main goal is to use less pesticide, just as much as the minimum necessary.**



- **Mechanical** or **physical** plant protection methods,
- **Cultural** plant protection methods,
- **Biological** plant protection methods,
- **Chemical** plant protection methods:

To apply plant production products **based on forecasting, targeted in time** and **space.**

Hungarian Chamber of Professionals and Doctors of Plant Protection

Plant protection forecasting system

- Plant protection forecasting system is **essential in IPM.**
- Plant protection forecasting is a basical task of our chamber. The chamber have created a nation-wide integrated plant protection forecasting system, and we operate it in cooperation with the National Agricultural Chamber.
- **80 plant protection experts** of our chamber produce forecast data for main crops **every week** during the growing season.

Hungarian Chamber of Professionals and Doctors of Plant Protection

Cooperation with authorities

- We are close cooperation with the NÉBIH in the official discovering and monitoring of quarantine pests.

  Flavescence dorée, *Scaphoideus titanus*, *Drosophila suzukii*, *Tuta absoluta*, *Rhagoletis completa*, *Tilletia indica*, *Bemisia tabaci*, *Thrips palmi*, *Liriomyza* spp.

Hungarian Chamber of Professionals and Doctors of Plant Protection

- To develop **legal plant protection methods** for **minor uses** (occasional licences of plant protection products).

MinorUses

Hungarian Chamber of Professionals and Doctors of Plant Protection

- Cooperation with **National Hungarian Beekeeping Association.**
- Protection of bees is very important.
- We are participating in bee monitoring program every year.

Grapevine Flavescence Dorée (FD) Phytoplasma – *Candidatus* Phytoplasma vitis

Candidatus Phytoplasma vitis

Typical symptoms:

The edges of the leaves are curving inward.

Yellowing or reddening occurs on the plant parts exposed to the sun.

The cluster formation is reduced, flower clearance is typical.

The berries shrink.

The branches may die during the winter.

The first occurrence of Grapevine flavescence dorée (FD) phytoplasma in Hungary

first detection: Lenti, Kerkateskánd 2013. aug.
second detection: Badacsonytomaj 2013. nov.

- **in grape:** Lenti, Kerkateskánd, Badacsonytomaj
- **in erdei iszalagban:** Lenti, Kerkateskánd, Badacsonytomaj
- **in the vector of FD (*Scaphoideus titanus*):** Kerkateskánd

- **The disease caused by *Ca.* Phytoplasma vitis is a new serious problem for grape growers in Hungary, and it can endanger the Hungarian grape cultivation seriously.**

- **Although, until now the presence of the pathogen has been detected in Western-Hungarian counties, rapid spreading is possible, and may result in a total destruction of grape on the Hungarian vineyards.**

- **Main control methods against the disease: compliance with quarantine measures, control the vectors.**


Occurrence of stone fruit yellows phytoplasma disease ("Ca. Phytoplasma prunorum") in Hungary

EUROPEAN STONE FRUIT YELLOWS PHYTOPLASMA - ESFY

„*Ca*. PHYTOPLASMA PRUNORUM” (2004)

A new serious pathogen for Hungarian apricot cultivation!!!

SYMPTOMS:

APRICOT PLANTATION

VISIBLE SYMPTOMS ON APRICOT

SYMPTOMS ON PEACH

SYMPTOMS ON CHERRY AND SOUR CHERRY

Phytoplasma infections on fruit plantations in Borsod-Abaúj-Zemplén County (datas of field examination)

No.	Time of field examination	Kind of examined fruit trees	Age (years) of trees	Area (ha)	Number of trees	Degree of infection					Ii	I%
						I	II	III	IV	V		
1	02.10.2009	Apricot	4	20	100	98	1	1	-	-	1,03	2
2	02.10.2009	Apricot	8-9	5	100	45	4	6	5	40	2,91	55
3	02.10.2009	Apricot	~8	3	**100**	15	7	7	6	**65**	3,99	**85**
4	02.10.2009	Apricot	12-13	10	100	30	6	4	35	25	3,21	70
5	02.10.2009	Peach	~8	6	100	79	7	2	2	10	1,57	21
6	02.10.2009.	Cherry	~10	22	100	70	9	4	6	11	1,79	30
7	02.10.2009.	Sour cherry	8-9	5	100	38	14	10	8	30	2,78	62
8	02.10.2009.	Sour cherry	7	~5	100	91	3	1	1	4	1,24	9
9	02.10.2009.	Sour cherry	~30	8	100	64	6	9	13	8	1,95	36

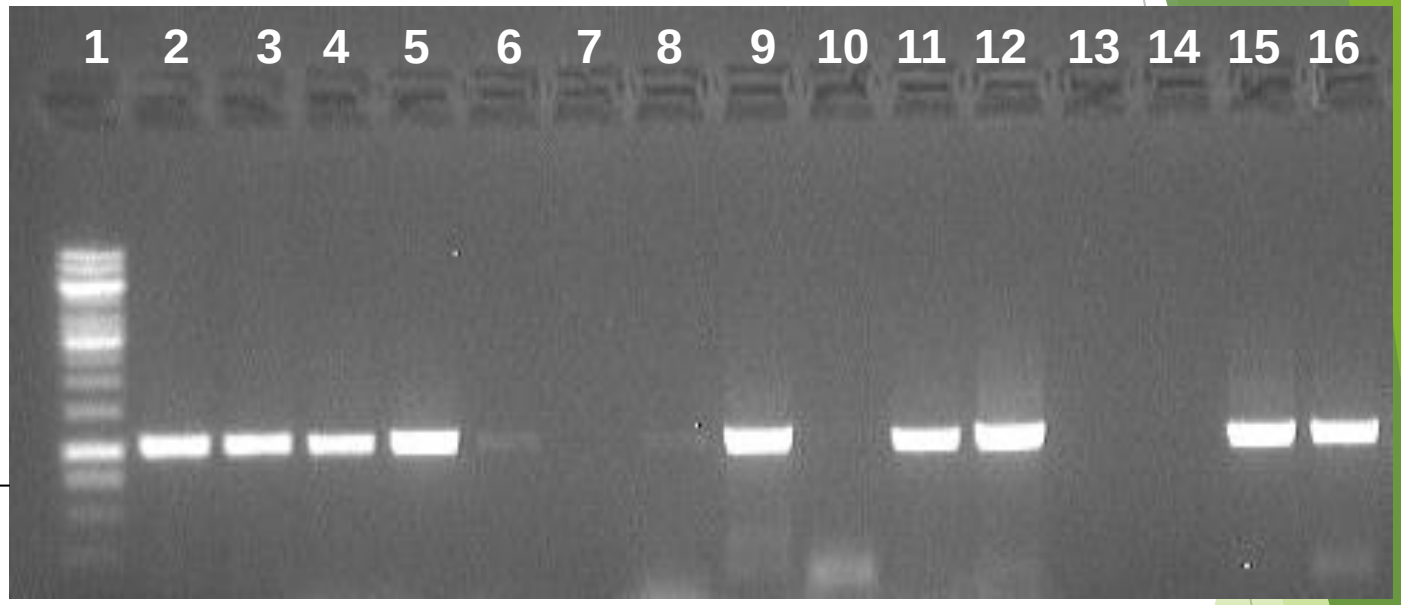
Locations: 1-9 in Bekecs

Phytoplasma infections on fruit plantations in Borsod-Abaúj-Zemplén County (datas of field examination)

No.	Time of field examination	Kind of examined fruit trees	Age (years) of trees	Area (ha)	Number of trees	Degree of infection					Ii	I%
						I	II	III	IV	V		
1	07.09.2010.	Apricot	13	22,6	70	11	12	2	10	35	3,66	84
2	07.09.2010.	Apricot	13	22,6	78	17	6	3	11	41	3,68	78
3	07.09.2010.	Sour cherry	7	5	104	43	7	12	12	30	2,78	59
4	07.09.2010.	Apricot	21	50	100	41	10	9	11	28	2,72	59
5	07.09.2010.	Apricot	4	5	54	34	4	4	3	9	2,06	37
6	07.09.2010.	Apricot	~12	6	50	46	1	2	1	-	1,16	8
7	07.09.2010.	Apricot	~25	15	100	23	24	12	21	26	3,21	77
8	07.09.2010.	Apricot	~15	10	50	45	3	1	1	-	1,16	10

Locations: 1-3-Bükkaranyos, 4-Rátka, 5-Göncruszka, 6-Vizsoly, 7-Boldogkőváralja, 8-Abaújkér

DNA fragments amplified by FO1/rO1 group-specific primers in 1% agarose gel



Remarks:

1: DNA ladder; 2,9: direct PCR; 2, 3, 4: infected apricot samples; 5: infected wild plum sample; 6, 7, 8: negative sour cherry and peach samples; 9: positive ESFY control; 10-16: nested PCR: 10: negative control; 16: positive ESFY control; 11: infected apricot sample; 12, 15: infected sour cherry samples; 13,14: negative sour cherry and peach samples

PLANT PROTECTION AGAINST PHYTOPLASMAS

- propagate from phytoplasma-free plants,
- eliminate perennial and biennial weed hosts,
- avoid planting susceptible plants next to plant harboring phytoplasma,
- control the vector in the plant and nearby weeds early in the season,
- use plant varieties that are more resistant to the disease, if available.

SPECIAL CONTROL AGAINST THE APRICOT PHYTOLPASMA DISEASE:

- propagate from phytoplasma-free plants
- control the vector

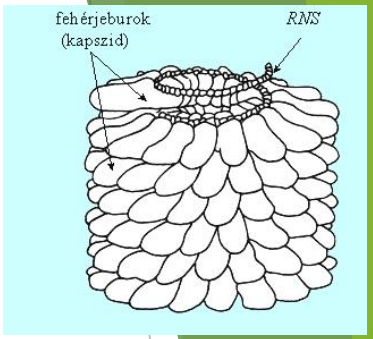
The vector:

Cacopsylla pruni

It is the main vector in the transmission of the pathogen. Its presence is observed in apricot plantations in several places in Hungary.

Plant diseases caused by phytoplasmas have increasing importance for almost all fruit growers. Phytoplasma diseases occur on several crops throughout the world, and these pathogens cause serious losses both in quality and quantity of fruit and crop production. In the long run these diseases cause the destruction of the bearing fruit trees

Until 1967, plant diseases known as „yellows diseases” were thought to be caused by viruses.



In 1967, Japanese researchers (Doi *et al.*, 1967) found microorganism by electron microscope in yellows diseased plants. This new class of plant disease agents was named a “mycoplasma-like organism” (Welliver, 1999).

In 1992, characterization of the organisms associated with yellows diseases had progressed to a point where it became clear they were unique and should be given their own name: PHYTOPLASMA (ICSB, 1993).

STOLBUR DISEASE OF POTATO AND TOMATO

Ca. PHYTOPLASMA SOLANI
(syn.: *STOLBUR PHYTOPLASMA*)





APPLE PROLIFERATION PHYTOPLASMA

***Ca.* PHYTOPLASMA MALI**



PEAR DECLINE PHYTOPLASMA

Ca. PHYTOPLASMA PYRI


PHYTOPLASMA DISEASES ON OTHER PLANTS

on GRAPE


on MAIZE

on COCONUT

PLANT DOCTOR'S DAY

14.11.2018.

- Gödöllő, SZIE
- More then 850 participants
- Professional lectores
- Donating honors


„Safe food to the table from the farm to the
ork”.
Thank You
For Your Attention!