

AGRI-KNOWS

Knowledge transfer in agriculture
as an added value in protecting
the environment



Polonca Trebše

Final Conference

Nova Gorica, 22.10.2014



2007-2013

cooperazione territoriale europea
programma per la cooperazione
transfrontaliera

Italia-Slovenia

evropsko teritorialno sodelovanje
program čezmejnega sodelovanja

Slovenija-Italija



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Progetto cofinanziato dal Fondo europeo di
sviluppo regionale

Projekt sofinancira Evropski sklad
za regionalni razvoj

Aims and scope

- **Provide specific knowledge on the problem of environmental pollution caused by excessive use of nutrients, pesticides and other substances**
- Project AGRI-KNOWS implements state of the art knowledge of high level experts from different institutions working in the research and in the agricultural sector (universities and research institutes) to the future generations of technical sector.



Aims and scope

- Implementation of knowledge transfer:
 - Training for secondary school teachers and education of students in primary and secondary schools
 - performance of microcosm experiments at schools,
 - organization of workshops for students, field trips
 - open days for primary schools
 - Summer schools for young farmers
- **The ultimate goal: raise awareness and concern for the environment and human health.**



Partners in the project

- University of Nova Gorica
- University of Udine
- Chamber for agriculture and forestry,
Agricultural institute Nova Gorica
- Council for research and experiments in
agriculture, Gorizia
- Technical high school center Nova Gorica
- ISIS Malignani, High school, Cervignano
- High school P. D'Aquileia, Cividale del Friuli



Duration of the project

26 months: 1.10.2012 – 30.11.2014

Activities:

WP1: Coordination and project management

WP2: Research (Pedology, pollutants from agriculture, microcosm experiments)

WP3: Education (Teachers, students, young farmers)

WP4: Information and dissemination



WP1: Coordination and project management

- Lead Partner: coordination and monitoring of the project, chairmanship of the Management Board, coordinating work packages-WP, reporting to the Governing Board, solving critical situations and website management;
- Project Partners: participate in the overall management of the project implementation activities, cooperation with Lead Partner, representation on the Management Board, reporting to the Lead partner;
- **Expected outputs and results:** Timely and accurate reporting to the Management Board, the completion of the activities of WP on schedule and with estimated costs, achieve goals, resolve any disputes and/or critical situations.



WP1: Coordination and project management

Within the project we organised 37 meetings in Nova Gorica, Udine, Cervignano and Cividale

Meeting 26.6.2013 in Gorizia



Meeting 12.12.2012 in Gorizia



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WP2: Research

- At different locations representative samples of soil were collected:
- Selection of representative nutrients and pollutants (pesticides and drugs), whose mobility will be tested in microcosm experiments,
- Layout and verification of analytical methods for the determination of nutrients and pollutants used in microcosm experiments,
- Construction and testing of appropriate columns for the performance of a microcosm experiments,
- Implementation microcosm experiments and evaluation of the results.



WP2: Research

WHAT WE HAVE LEARNED:

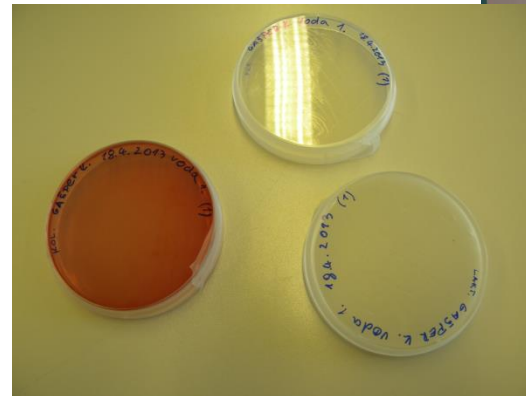
- the knowledge on soil contamination and the potential impacts of different agricultural practices in both countries,
- the knowledge regarding the potential risk for water resources,
- The knowledge of chemical analytical methods for the determination of various nutrients and pollutants in environmental samples,
- Lessons where we learned about proper implementation of the real experiment,
- Obtained practical knowledge in the field, knowledge of proper sampling, sample preparation for chemical analysis and interpretation of results.



WP2: Research



Experiments at Technical High School in Nova Gorica



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WP2: Research



Experiments at ISIS Malignani
High School Cervignano

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WP2: Research



Experiments at High school P.
D'Aquileia, Cividale del Friuli



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WP3: Education

EDUCATION OF STUDENTS

- Published reports on case studies of good agricultural practices between the partners. These will contain information concerning the reduced use of various nutrients and pesticides in agricultural practice,
- Organization of technical days on which students exchanged and present obtained results.
- Organisation of lectures and lab work for pupils from primary school

EDUCATION OF TEACHERS

- organisation of seminars for teachers of science, where students and their mentors presented their work to the teachers from other schools in the region



WP3: Education

ORGANISATION OF SUMMER SCHOOLS

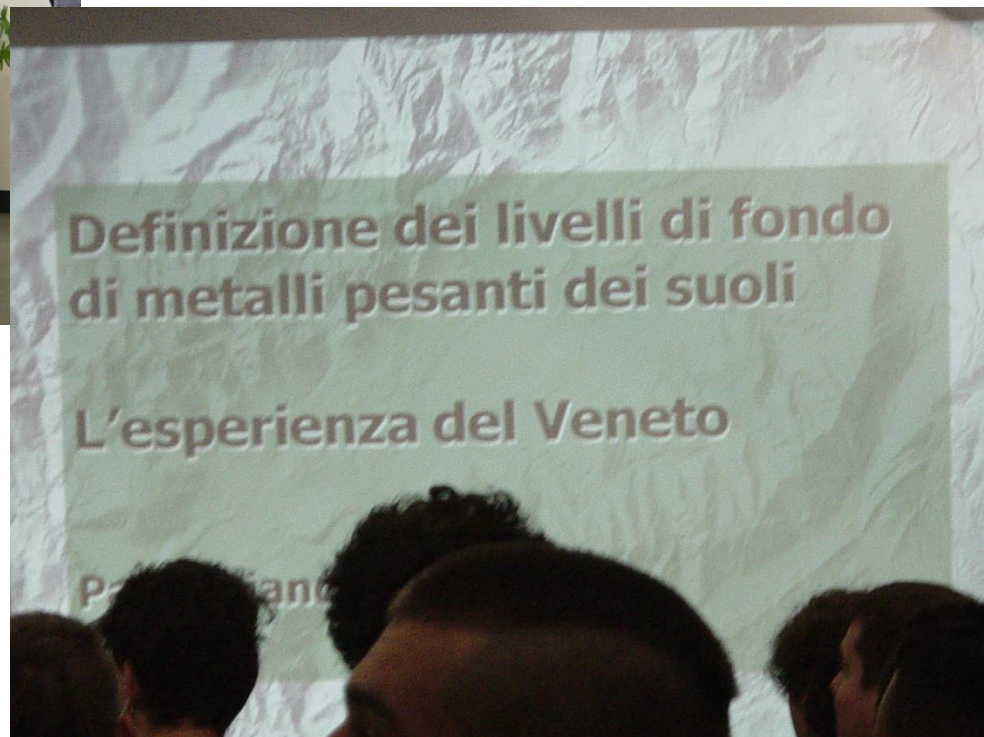
- Organization of two summer school for young people/students of agriculture: the transfer of practical skills to young people, who would in the future decide to undertake agricultural activities within the family and those who commenced new farming ventures in Slovenia and in Italy.
 - Summer school in Nova Gorica in July 2014
 - Summer school in Cervignano in September 2014



WP3: Education



Cervignano, March 2013



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WP3: Education



Field work: Observation of
Soil profiles, Nova Gorica,
may 2013

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WP3: Education



Technical day in Cividale,
november 2013

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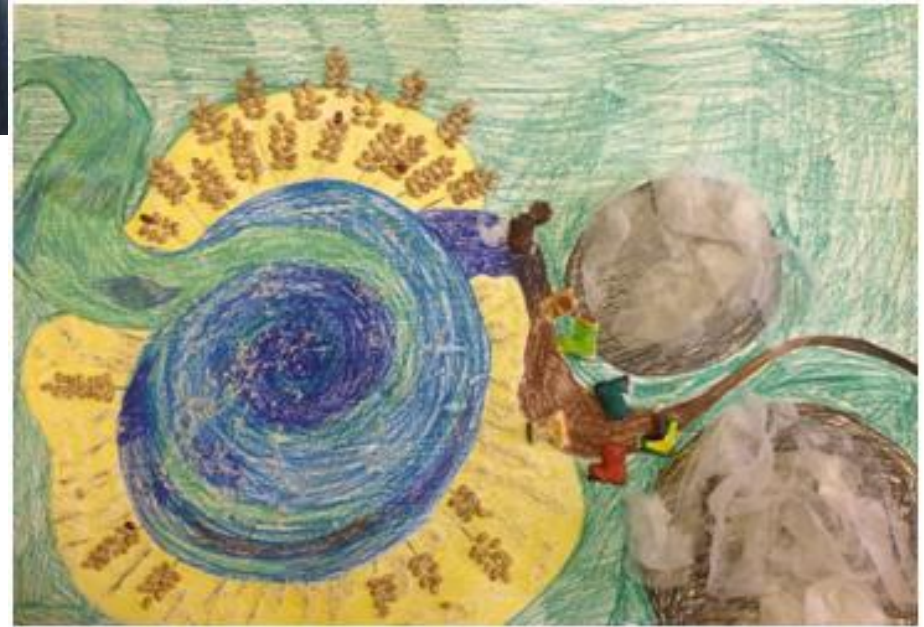
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WP3: Education



Ecological Hours, Summer at
Soča river, 4. 7. 2013



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WP3: Education



Cervignano, Education of the students and teachers, 20. 9. 2013



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WP3: Education



Nova Gorica, Technical Day,
28.2.2014

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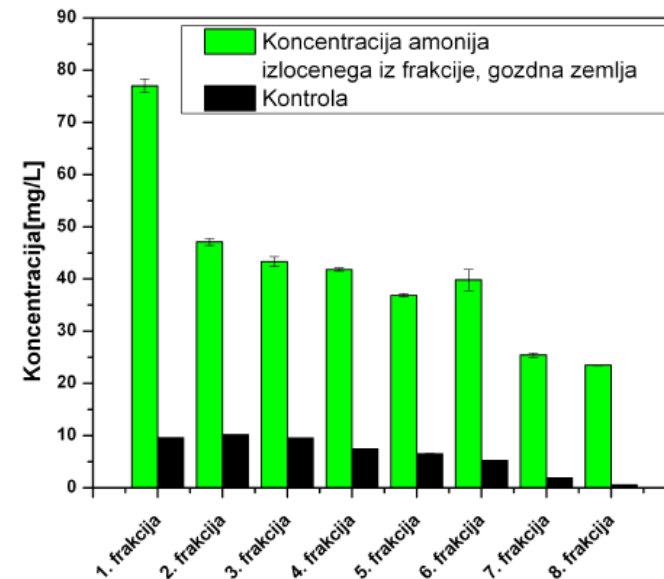
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WP3: Education



Slovenski kemijski dnevi 2014



Sledenje različnih onesnažil iz kmetijstva v vzorcih zemlje

Kristina Kalister^a, Eva Gričar^b, Anže Hubman^b, Nina Sojer^b, Nik Dobnikar^b, Ema Odra Raščan^b, Nicola David^b, Ivana Poša^c, Tjaša Jug^d, Nina Fiorelli Derman^d, Marco Contin^e,
^fGilberto Bragato, Polonca Trebše^a

Summer school, Nova Gorica, July 2014

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WP3: Education



Summer school in Cervignano,
September 2014



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Italia-Slovenia 2007
Slovenija-Italia 2013
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ERDF

WP4: Information and dissemination

- The organization of science days for primary schools, with the participations students, who will present acquired competences to the primary school students,
- Implementation of an Open Days event in secondary schools.
- Logo selection
- Establishment of the project website
- press releases - published in the local media,
- Publications of research results in scientific journals and on the project website.



WP4: Information and dissemination



Gorizia, Vegetarian Festival,
5. 7. 2014

Aquileia, 15. 4. 2014
Earth Day



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WP4: Information and dissemination



Agra, august 2013, Gornja Radgona

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WP4: Information and dissemination

Direttiva nitrati e contaminazione del suolo da metalli pesanti: sviluppo e finalità del progetto Interreg AGRI-KNOWS (Italia-Slovenia)

Olga Malev, Marco Contin

Dipartimento di Scienze agrarie e ambientali, Università degli studi di Udine
Stefano Barbieri, Valentino Volpe, Sonia Venerus
Servizio fitosanitario e chimico, ricerca, sperimentazione e assistenza tecnica
Gilberto Bragato

CRA-RPS Consiglio per la ricerca e sperimentazione in agricoltura
Centro di ricerca per lo studio delle relazioni tra pianta e suolo

NOVA GORICA: Projekt Agri Knows

Kmetujmo zdravo

V okviru programa čezmejnega sodelovanja Slovenija - Italija
2007-2013 poteka projekt Agri Knows - Prenos znanja v kmetijstvu
kot dodana vrednost pri zaščiti okolja.

ActaChimica

AGRI - KNOWS - Prenos znanja v kmetijstvu kot dodana vrednost
pri zaščiti okolja (web page: <http://www.ung.si/si/>)

V okviru projekta AGRI-KNOWS prenašamo specifična znanja strokovnjakov o problematiki onesnaževanja okolja iz kmetijstva na mlajše generacije, dijake in učence osnovnih šol. Pri tem sodelujejo tudi učitelji srednjih šol, ki se pri svojem pedagoškem delu srečujejo z okoljsko problematiko. Posebno pozornost namenjamo mladim kmetovalcem, ki so sicer seznanjeni s problematiko onesnaževanja okolja, vendar pa nimajo dovolj znanj o razširjanju in pretvarjanju različnih onesnažil v okolju in njihovem prehajajo iz kopenskega v vodni sistem in obratno. Tudi mladi, ki se strokovno šolajo za samostojno dejavnost s področja kmetijstva, nimajo dovolj izkušenj, so pa bolj dovzetni za pridobivanje novih znanj.

Tako kot dodani vrednosti povečujemo njihovo ozaveščenost in kompetence glede varovanja okolja ter zdravja ljudi, s tem pa jim dajemo tudi boljše osnovo za nadaljnje šolanje in zaposlitev.

Dosedanje že izvedene aktivnosti:

- izvedba mikrokozmos poskusov na partnerskih srednjih šolah v Sloveniji in Italiji
- organizacija izobraževanja za učitelje naravoslovja
- organizacija obiskov učencev osnovnih in srednjih šol na univerzah, ki sodelujejo v projektu
- izvedba tehničnih dni na srednjih šolah
- udeležba na promocijskih dogodkih (UNESCO konferenca v Palmanovi, sejem AGRA v Gornji Radgoni)

V šolskem letu 2013/14 nameravamo izvesti še eno serijo mikrokozmos poskusov na srednjih šolah, spomladi 2014 pa organizirati poletno šolo za dijake srednjih šol ter v sklopu zaključne konference predstaviti rezultate projekta širši javnosti.

Vabimo vas, da se prihodnjih dogodkov v okviru projekta Agri-Knows udeležite tudi sami oziroma z vašimi učenci in dijaki. Podrobnejši program dogodkov in prijavní obrazec je na spletni strani projekta; <http://projects.ung.si/agriknows/>.



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Italia-Slovenia 2007
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Analisi del suolo con gli studenti

L'iniziativa rientra in un progetto promosso dall'istituto Malignani

► CERVIGNANO

Le aule, i laboratori e gli spazi verdi dell'Istituto Malignani, il prossimo mese di settembre, con l'avvio del nuovo anno scolastico, ospiteranno studenti provenienti dalle scuole di tutta la regione. I ragazzi daranno vita all'"Agri knows summer school", un'iniziativa promossa dall'Isis della Bassa friulana nell'ambito di un progetto Interreg fra Italia e Slovenia.

«Il programma di questo speciale campo estivo - spiegano i responsabili - prevede di svolgere attività scientifiche sperimentali in laboratorio

e sul campo, oltre a visite di fattorie agricole del territorio e di particolari ecosistemi come il bosco di Muzzana e della Brussa. Sotto la supervisione di docenti qualificati dell'Università di Nova Gorica, dell'Università di Udine, del Consiglio per la ricerca e la sperimentazione in agricoltura di Gorizia, della Camera per l'agricoltura e le foreste della Slovenia e dell'Istituto agricolo forestale di Nova Gorica, i partecipanti - si affrettano a sottolineare gli organizzatori - potranno analizzare, con un approccio pratico e soprattutto concreto, le problematiche ambientali riferite soprattutto

all'uso di nutrienti e pesticidi in agricoltura».

«Saranno eseguite analisi del suolo - proseguono - per studiarne i caratteri chimico-fisici ed osservare le trasformazioni indotte da un uso intensivo dei fertilizzanti azotati. Sarà studiato l'impatto sull'agricoltura dei cambiamenti climatici e saranno affrontate problematiche delicate di assoluta attualità, come l'inquinamento da micotossine e l'inquinamento da metalli nei suoli».

Il programma dell'iniziativa prevede dibattiti e conferenze, attività di studio e ricerca, ma anche momenti di animazione. (e.m.)

Poletna šola Znanosti o okolju

NOVA GORICA - V okviru projekta AGRI-KNOWS, ki ga država in EU sofinancirata v okviru Programa čezmejnega sodelovanja Slovenija-Italija 2007-2013, je Univerza v Novi Gorici skupaj z Zvezo za tehnično kulturo Slovenije (ZOTKS) od 6. do 11. julija v Novi Gorici organizirala Poletno šolo z naslovom *Znanosti o okolju*. Dijaki iz Slovenije in Italije so skupaj s sodelavci Laboratorija za raziskave v okolju Univerze v Novi Gorici ter strokovnjaki partnerskih institucij: Kmetijsko gozdarske zbornice Slovenije - Kmetijsko gozdarskega zavoda Nova Gorica, Biotehniške šole šolskega centra Nova Gorica, Univerze v Vidnu ter Centra za raziskave v kmetijstvu iz Gorice, raziskovali zadrževanje nekaterih pogostejih uporabljenih kmetijskih sredstev v tleh, kot sta pesticid imidakloprid ter med umetnimi gnojili amonijev nitrat. Dijaki so se v poletni šoli seznanili z osnovami raziskovalnega dela, kot so prepoznavanje najpogostejših onesnažil, ki jih v okolje vnašamo s kmetijsko dejavnostjo, spoznali so pomen njihovih kemijskih lastnosti v procesih mobilnosti v tleh, osvojili so izbrane analitične metode za določanje onesnažil v okoljskih vzorcih (voda, prst) ter pomen pravilne interpretacije rezultatov. Rezultate dela so v angleškem jeziku predstavili na zaključku poletne šole, ki so se ga udeležili starši dijakov, predstavniki sodelujočih institucij ter tajnik ZOTKS, Jožef Školjč. Za sodelovanje v poletni šoli so dijaki prejeli priznanja ZOTKS ter spominske majice projekta AGRI-KNOWS.

(pt)



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Italia-Slovenia 2007
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Hvala za vašo pozornost!
Grazie per l' attenzione!

Polonca.trebse@ung.si

Website:
<http://projects.ung.si/agriknows/index.html>.

*Projekt je sofinanciran v okviru Programa čezmejnega sodelovanja Slovenija-Italija 2007-2013 iz sredstev Evropskega sklada za regionalni razvoj in nacionalnih sredstev
Progetto finanziato nell'ambito del Programma per la Cooperazione Transfrontaliera Italia-Slovenia 2007-2013, dal Fondo europeo di sviluppo regionale e dai fondi nazionali.*



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IN EVROPSKO KOHEZIJSKO POLITIKO



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2007-2013

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za regionalni razvoj