Developing new communication formats for research innovation

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Since 2004 Agroinnova gained a broad expertise in the coordination of complex and multidisciplinary European projects and initiatives in the sustainable agriculture sector. EU projects aim at updating and improving the environmental knowledge of European decision makers and experts, as well as of public and students. Moreover, one of the objectives of the European Commission Programme Horizon 2020 is to bring researchers closer to the public and to increase awareness of research and innovation activities, supporting the public recognition of researchers. Communication often combines sciences with entertainment, especially when addressing young audience. In the lasts years (2015-2016), Agroinnova organized many activities concerning communication and dissemination of research results, each one with a specific format and topic issues.

Piedmont: Research Agriculture Innovation
June 20, 2015 - 4:00 - 6:00 p.m. EXPO Milan 2015, Italian Palace, Auditorium

The event involved the partners of six projects supported by the Piedmont Agro-Food Platform during the period 2010 - 2013. Regione Piemonte and Agroinnova brought together key experts with the main objective to endorse enterprises and value the role of Research in Piedmont Agro-Food sector. The discussion focused on experiences and competences acquired about one of the themes of EXPO 2015 in Milan: to improve the environmental sustainability of agro-food sector.

Sustainable development strategies for promoting urban-rural linkages in agro-food systems
October 14, 2015 11:15 a.m. - 1:00 p.m. Torino, 3rd World Forum of Local Economic Development
The workshop provided an open space for dialogue and participation for those actors who want to contribute to the debate on Local Economic Development as a mean to address Post-2015 Development Agenda challenges during the Forum. The aim of the panel session was to promote sustainable development strategies for urban-rural linkages in agro-food systems and to prove positive application experiences and recognize the significance of establishing sustainable urban-rural linkages.

Raccontare la Salute delle Piante
January 25 and February 8, 2016 9:00 a.m. - 1:00 p.m. Torino, Regione Piemonte Congress Centre
Agroinnova organized two conferences in collaboration with the Association of journalists of Piedmont to provide information about some agro-food and agro-environmental news, i.e., climate change, emerging plant pathogens and green biotechnologies.

**Emphasis per l’Ambiente**
May 30, 2016 9:00 - 11:00 p.m. Torino, Teatro Carignano

The event showed to the public, through an original format, the role of plant health for environment protection, food production and landscape. Laura Curino, Bruno Maria Ferraro, Massimo Iarlo, Claudia Pennoni performed. William McDonough, Donato Lanati and Guido Barosio explained their relationship with the environment. Agroinnova contributed to the 2016 “Green Week” with a Side Event, organized as Coordinator of the Horizon 2020 Project Emphasis, in order to introduce to the public some of the environmental issues, through an event organized in the most impressive and baroque theatre of the city of Torino.

**Designing the Circular Economy**
May 31, 2016 17:30 - 19:30 p.m. Torino, Torino Incontra Congress Centre

The conference by William McDonough, renowned architect, focused on green buildings and Cradle-to-Cradle design; role of natural systems to design infrastructure; design of multifunctional systems, aiming to valorize different sources and to design innovative projects regarding sustainable development. In addition, he showed case studies related to European and Italian projects, considering the future of Cradle-to-Cradle design and urban architecture.

**Open Day 2016 Climate change and new plant diseases**
September 15, 2016 11:00 Grugliasco, University Campus

Agroinnova showed the results obtained in plant disease management and emerging plant pathogens coming from other countries because of international commerce of foodstuff, seed and plant propagation material. A further confirmation of the central role of the Centre, both at a national and international level, in the research field and in the knowledge and technology transfer applied to the agri-food sector.

Agroinnova will continue developing new formats of communication of research projects in order to: increase awareness among the general public of the importance of research and innovation and more favourable general attitude towards its funding; help a better understanding of the key benefits that research brings to society; reduce the stereotypes about researchers and their profession. This extra effort will pay off in the long run.

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**Miglioramento della diagnosi e quantificazione di *Fusarium fujikuroi* nelle piante e nelle cariossidi di riso**

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‘Bakanae’ è una delle più importanti malattie fungine che colpiscono il riso (Oryza sativa L.). L’agente causale della malattia è *Fusarium fujikuroi*, patogeno trasmissibile per semé. ‘Bakanae’ è ampiamente diffusa in Asia, Italia, e California (Carter et al., 2008; Spadaro et al., 2016). Le perdite di raccolto possono variare da basse (3%) ad alte (95%) in funzione dell’area di coltivazione, delle condizioni climatiche e della varietà scelta (Gupta et al., 2015). La disponibilità limitata di prodotti chimici per la concia sta provocando un aumento dell’importanza di questo patogeno.

L’obiettivo principale di questo lavoro è stato quello di migliorare la diagnosi molecolare e quantificare l’agente causale di ‘Bakanae’ in diversi tessuti di riso, particolarmente nei semi dove *F. fujikuroi* è presente in bassa quantità. Per questo scopo la TaqMan real-time PCR è stata sviluppata per una rilevazione sensibile e quantitativa di *F. fujikuroi* nel riso infetto. Il gene TEF 1-a è stato scelto come regione principale per il disegno della sonda TaqMan e dei primer, a causa di una delezione nucleotidica specifica per la specie di *F. fujikuroi*. Tre set di primer/sonda sono stati disegnati e un set con amplicone di 80 basi è stato selezionato tra di loro come il più specifico per identificare *F. fujikuroi* e valutare la sua differenziazione dalle otto specie di *Fusarium* e di due altri patogeni fungini presenti su riso.

La TaqMan real-time PCR (Fig.1) è stata sviluppata

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**Figura 1 - La quantificazione di *Fusarium fujikuroi* con TaqMan real-time PCR su sei lotti di semi di riso contaminati naturalmente.**

*Figure 1 - Quantification of Fusarium fujikuroi with TaqMan real-time PCR on six naturally contaminated rice seed lots.*