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Program and Abstracts

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O44

INVISIBLE LIGHT, VISIBLE RESULTS: GAMMA IRRADIATION EFFECTS ON AROMATIC, EDIBLE AND MEDICINAL PLANTS

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Aromatic, edible and medicinal plants require effective conservation technologies to expand their use. During the processing and storage, they can be easily exposed to contamination that can lead to a microbial deterioration or insect infestation compromising its quality and shelf life. In this study, one of the most promising decontamination methods for many foodstuffs and plant materials was applied. The effects of gamma irradiation in chemical (aromatic plant- *Aloysia citrodora* Palàu), nutritional (edible plant- *Nasturtium officinale* W.T. Aiton) and anti-hepatocellular carcinoma (medicinal plant- *Cochlospermum angolensis* Welw.) properties were evaluated for doses up to 10 kGy. The results showed that each plant was differentially affected by irradiation treatment. For aromatic and edible plants, the effects of gamma irradiation in chemical and nutritional properties proved to have statistical significance in some particular cases. However, when analyzed under an integrated approach, non-irradiated and irradiated samples were grouped indiscriminately, indicating that irradiation treatment did not cause sufficient changes to define a specific chemical profile. Regarding the medicinal plant, irradiated samples kept the anti-hepatocellular carcinoma activity, but a decrease was observed in the methanolic extract prepared from the sample irradiated at 10 kGy. Overall, it might be considered that gamma irradiation, up to 10 kGy, is a feasible conservation technology for the assayed plant species and that irradiation might ensure plant decontamination, while maintaining their chemical, nutritional and bioactive qualities.

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	August 29	August 30	August 31	September 1	September 2	September 3
		Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
9:00		***Invited lecture*** LaVerne	***Invited lecture*** Mostafavi	***Invited lecture*** Coqueret	***Invited lecture*** Przybytniak	***Invited lecture*** Chmielewski
9:30		Szabó	Illés	Kadlubowski	Pimblott	Pavelková
9:50		Feldman	Yoshida	Pasanphan	Boughattas	Ferry
10:10		Kameneva	Hommes	Kiraç	Combernoux	Durchschlag
10:30		Coffee break	Coffee break	Coffee break	Coffee break	Basfar
10:50		***Invited lecture*** Wojcik	***Invited lecture*** Ulanski	***Invited lecture*** Bucio	iia session: Varca, Adamus, Zavala-Lagunes and Fromentin	Closing remarks
11:20		Takahashi	Ferreira	Abad		
11:40		Schiller	Kodama	Şen		Lunch
12:00		La Caër	Kahnt	Antonio	Lunch	
12:20		Lunch	Lunch	Lunch		
13:20						
13:30	Registration				Conference excursion	
14:00		***Invited lecture*** Berlin	***Invited lecture*** Güven	***Invited lecture*** Han		
14:30		Strozik	Barsbay	Sági		
14:50		Domazou	Sütekin	Kovács		
15:10		Venault	Ponomarev	Alkhuraiji		
15:30		Skotnicki	Gohdo	Kantoğlu		
15:50		Coffee break	Coffee break	Coffee break		
16:10		***Invited lecture*** Pillai	***Invited lecture*** Al-Sheikhly	***Invited lecture*** Miller		
16:40		Konarska	Driscoll	Chantler		
17:00		Barilla	Fekete	Szajerski		
17:20		Varca	Burillo	Zimek		
17:40			***Invited lecture*** Sáfrány	***Invited lecture*** Poster		
18:10			Schmitz			
18:20				Dinner		
18:30			Dinner			
19:00	Dinner	Dinner			Dinner	
20:00				Poster session		
22:00						