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testing the toxicity of individual ingredients ignoring possible interactions. The objective of the study was to systematically review the literature of in vitro and in vivo studies that compare the toxicity of pesticide product formulations and their declared active ingredients.

Material and Methods: PubMed and Scopus were searched using the following terms: “pesticide”, “formulation”, “commercial product”, “commercial pesticide” and “health”. After screening by predefined inclusion and exclusion criteria, quality and reliability assessment was conducted by the ToxRTool. Two investigators independently screened the identified publications and extracted results from eligible studies.

Results: Our search yielded 36 studies, including 23 that investigated herbicides, 15 insecticides, and 4 fungicides. 24 studies reported increased toxicity of the product formulations versus their active ingredients, which in most cases was attributed to the presence of adjuvants. Ten studies compared glyphosate and glyphosate-based herbicides, and six of them concluded that Roundup, the dominant product formulation of glyphosate, is more toxic than glyphosate alone.

Conclusions: The results demonstrate that ignoring the possible risks of interaction between the active and other ingredients of commercial pesticide product formulations might result in the misinterpretation of their toxicological profile. We recommend that all product formulations should be fully assessed during the authorization process.

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Opportunities presented through the use of social media and social media influencers in Strategic Farm Safety Communication Campaigns

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Introduction: This study assessed whether social media could be utilised to target and influence younger farmers to encourage behavioural change and lower incidences of accidents in the sector. **Materials and Methods:** Working students in the sector (n=309) were invited to an anonymous online survey composed of 32 attitudinal behavioural questions across four themes: attitude towards farm OSH; influence of social media and influencers on farm OSH; most popular media formats; and most preferred media apps to utilise in an Agri OSH campaign.

Results: 107 students participated. 56% considered OSH important on their farms, with 16% having previously been personally affected by a farm accident. 78% were motivated by an agricultural social media influencer while 74% reflect on their own practice after seeing unsafe farm behaviour on social media. Snapchat (35%), Tik Tok (33%), Facebook (25%) and Instagram (16%) were found to be the most popular apps used by participants. 67% stated agricultural social media influencer videos as being the most effective in communicating farm OSH risk. 54% of participants found OSH videos uploaded by other social media users as being most effective way to change behaviour as opposed to 61% and 47% respectively, who stated official written guidance and photos were least effective. 59% agreed that social media is an effective tool in communicating farm OSH messages to young farmers.

Conclusion: Social media / influencers present an opportunity for collaboration with agricultural stakeholders who have an interest

in OSH to encourage behavioural change within a wider strategic farm safety campaign.

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Knowledge, attitudes and practices of farmers on the use of pesticides

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Introduction: The intensive and uncontrolled use of pesticides in Morocco generates health and environmental problems. The objective of this study was to assess the knowledge, attitudes and practices of farmers on their use.

Material and methods: This cross-sectional epidemiological study conducted in 2021 in the Ifrane region involved 153 male farmers aged > 18 years. Data were collected using a pretested and structured questionnaire via face to-face interviews. The questionnaire included socio-demographic and professional parameters and items relating to knowledge, attitudes and practices.

Results: The mean age was 48 ± 12 years, 21.5% were illiterate, 73.3% had small farms of less than 5 hectares. Market gardening and arboriculture were the most common. 93% considered that pesticides presented a health and environmental hazard. 79.7% were not aware of the existence of safety data sheets and 82.2% did not know the meaning of the pictograms. For 97.4% efficiency was decisive in the purchase of the pesticide. They were used by all farmers for therapeutic purposes. 45.1% consistently followed the operating instructions and 72.5% did not wear protective equipment.

Conclusions: The study exposed the existence of pesticide exposure, the low safe use of pesticide and the low use of personal protection equipment. Limited knowledge and faulty attitudes and practices require national supervision of farmers, their awareness of environmental and health problems, and financial aid to the most disadvantaged. These findings appeal for the development of effective public health strategies to improve farmers' awareness.

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Knowledge, Attitudes and Practices of Agricultural Workers Exposed to Bumblebee- Pollinator Stings

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