Supplementary Material

Annex 1. The fuzzy empirical rules for classifying *P. subcapitata* (AGI), *A. globiformis* (BCA) and *A. fischeri* (LBT) bioassays

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| **Rule** | Condition of variable attributes (toxic response) | **Classification** | **Total Weight** |
| **AGI** | **LBT** | **BCA** |
| 1. | *If* | Low or no toxic response | *and* | Little or no toxic response | *And* | Little or no toxic response | *Then* | Low or no potential risk | 1 |
| 2. | *If* | Low or no toxic response | *and* | Moderate toxic response | *And* | Moderate toxic response | *Then* | Critical risk | 1 |
| 3. | *If* | Low or no toxic response | *and* | Little or no toxic response | *And* | Highly toxic | *Then* | Low or no potential risk | 1 |
| 4. | *If* | Little or no toxic response | *and* | Moderate toxic response | *And* | High toxic responses | *Then* | Low or no potential risk | 1 |
| 5. | *If* | High toxic response | *and* | Moderate toxic response | *And* | High toxic response | *Then* | Elevated critical risk | 1 |
| 6 | *If* | Moderate toxic responses | *and* | Little or no toxic response | *And* | High toxic response | *Then* | Critical risk | 1 |
| 7. | *If* | Moderate toxic response | *and* | Moderate toxic response | *And* | High toxic response | *Then* | Critical risk | 1 |
| 8. | *If* | High toxic response | *and* | High toxic response | *And* | High toxic response | *Then* | Elevated critical risk | 1 |
| 9. | *If* | High toxic response | *and* | High toxic response | *And* | Moderate toxic response | *Then* | Elevated critical risk | 1 |
| 10. | *If* | Moderate toxic response | *and* | High toxic response | *And* | Little or no toxic response | *Then* | Critical risk | 1 |
| 11. | *If* | High toxic response | *and* | Little or no toxic response | *And* | High toxic response | *Then* | Elevated critical risk | 1 |
| 12. | *If* | Moderate toxic response | *and* | Moderate toxic response | *And* | Moderate toxic response | *Then* | Critical risk | 1 |
| 13. | *If* | Low or no toxic response | *and* | High toxic response | *And* | Moderate toxic response | *Then* | Critical risk | 1 |
| 14. | *If* | High toxic response | *and* | Moderate toxic response | *And* | Little or no toxic response | *Then* | Critical risk | 1 |
| 15. | *If* | Low or no toxic response | *and* | Moderate toxic response | *And* | Little or no toxic response | *Then* | Low or no potential risk | 1 |
| 16. | *If* | High toxic response | *and* | Moderate toxic response | *And* | Little or no toxic response | *Then* | Critical risk | 1 |
| 17. | *If* | High toxic response | *and* | Little or no toxic response | *And* | High toxic response | *Then* | Elevated critical risk | 1 |
| 18. | *If* | Little or no toxic response | *and* | High toxic response | *And* | Little or no toxic response | *Then* | Low or no potential risk | 1 |
| 19. | *If* | Moderate toxic response | *and* | Moderate toxic response | *And* | Little or no toxic response | *Then* | Critical risk | 1 |
| 20. | *If* | High toxic response | *and* | High toxic response | *And* | Little or no toxic | *Then* | Critical risk | 1 |
| 21. | *If* | Moderate toxic response | *and* | High toxic response | *And* | Moderate toxic response | *Then* | Elevated critical risk | 1 |
| 22. | *If* | High toxic response | *and* | Little or no toxic response | *And* | Little or no toxic response | *Then* | Low or no potential risk | 1 |
| 23 | *If* | Little or no toxic responses | *and* | Little or no toxic responses | *And* | Moderate toxic responses | *Then* | Low or no potential risk | 1 |
| 24. | *If* | Little or no toxic | *and* | High toxic responses | *And* | High toxic responses | *Then* | Elevated potential risk | 1 |
| 25. | *If* | High toxic responses | *and* | Little or no toxic responses | *And* | Moderate toxic responses | *Then* | Critical risk | 1 |
| 26. | *If* | Little or no toxic responses | *and* | Moderate toxic responses | *And* | Little or no toxic responses | *Then* | Low or no potential risk | 1 |
| 27. | *If* | Moderate toxic responses | *and* | Little or no toxic responses | *And* | Little or no toxic responses | *Then* | Low or no potential risk | 1 |

*Total weight for responses in three bioassays=permitted range of certainty factors*