

ニラの株元灌注、灌注、株元散布で適用のある 農薬 8 成分の残留リスクの検討

森田展樹・島本文子

The residual tendency of pesticides in Chinese chive with
drenching the soil, irrigation, and application the bases of plant

Nobuki MORITA and Fumiko SHIMAMOTO

要 約

ニラについて、使用方法が株元灌注、灌注、株元散布で登録のある 8 種類の農薬を処理し、収穫時の残留濃度を調査した。ニラ葉に対する薬剤の付着の有無および農薬処理日から収穫日までの日数の違いによる残留濃度と残留基準値とを比較し、リスクの高い農薬を明らかにするとともに、リスクを軽減させる処理時期および方法について推察した。

1. ニラの葉に薬剤が付着した場合、使用時期に準じて使用しても、ブプロフェジン水和剤、プロチオホス乳剤、チオファネートメチル水和剤、フルアジナム粉剤は基準値を超過するリスクがあった。
2. ニラの葉に薬剤が付着した場合にリスクのある農薬は、前作のニラの刈り取り直後に農薬を処理することでリスクを軽減できる。
3. ジノテフラン水溶剤を除く全ての農薬について、ニラの生育期間中の平均気温が低い場合に残留濃度が増加する傾向があった。
4. 薬液が葉に付着した場合、処理してから収穫までの日数が長くなるほど、処理時に薬液が付着した葉が収穫後の調製時に除去される割合が相対的に多くなるため、残留濃度が低い傾向にあった。

キーワード：ニラ、残留農薬、株元灌注、灌注、株元散布

Sumamary

Chinese chive was treated with eight types of registered pesticides by drenching the soil, irrigation, and application at the bases of the plants, and the residual concentrations in the plants at the time of harvest were investigated. By comparing the residual concentrations and standard values on the leaves in the presence or absence of pesticide and the differences in the number of days from pesticide treatment to harvest, pesticides with a high risk of exceeding the residual standard values were identified. We also inferred appropriate treatment time and methods, so that the residual standard values would not be exceeded.

1. When pesticides adhered to the leaves of Chinese chive, there was a risk that the buprofezin wettable powder, prothiofos emulsion, thiophanate-methyl wettable powder, and fluazinam powder would exceed the standard values, even if they were applied at the recommended times. In addition, it is unlikely that the standard values would be exceeded for the dinotefuran aqueous solvent, tolclofos-methyl wettable powder, DMTP emulsion, and methomyl wettable powder.
2. For pesticides that pose a risk when they adhere to Chinese chive leaves, it was thought that the risk could be reduced by treating the soil with pesticides immediately after harvesting Chinese chive.
3. For all pesticides except dinotefuran aqueous solvent, the residual concentration tended to increase when the average temperature was low during the growing period of Chinese chive.
4. For pesticides that adhere to leaves, the greater the number of days from treatment to harvest, the greater the amount of pesticide removed from the leaves during post-harvest preparation. In this case, the concentration tended to be low.

Key word: Chinese chive, pesticide redidues, drenching, application the base of plant.