

More sustainable, resilient, and competitive food systems through the development of intermediate food value chains



PRACTICE ABSTRACT No: 6

Vinegar: a promising use in agriculture for fruit production

With the constant growth of the world population, and more and more plant protection products being banned, it is important to find ecological ways to improve the productivity of food surfaces. Here we propose to farmers an ecological and cheap alternative for conservation of fruits and vegetables.

Many promising effects of the implementation of vinegar in agriculture can be found. The main promising themes are the conservation of fruits, the fight against wheat common blight and growth enhancement. Fumigation or dipping in vinegar allows an enhanced conservation of fruits, decreases fruit rotting resulting in turn in less food waste, which decreases farmers' income loss. In the case of wheat common blight, currently, the only possibility is seed treatment. Later treatments cannot work against this disease. Vinegar would thus be an organic way to treat this disease by seed dipping, which limits harvest downgrading and thus high monetary losses. The spraying of potatoes leaves with vinegar could also enhance the weight of the tubers, leading to a higher yield.

Beyond its practical applications, the use of vinegar could also enhance farmer independence and autonomy. Farmers could valorize the rest of their production (bad looking fruits, excess cereals) and rely less on commercially-produced plant protection and plant nutrition enhancers.

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End Users

Farmer & Cooperative

Country

worldwide



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ABOUT FAIRCHAIN

The FAIRCHAIN project launched in 2020 and coordinated by INRAE, is developing intermediate food value chains in the fruits and vegetable and dairy sectors. Through technological, organizational and social innovations and by developing business models FAIRCHAIN will enable small and mid-size stakeholders to scale up to supply fresh, sustainable and high-quality food products to consumers at a regional level.

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Utilisation prometteuse du vinaigre dans la production fruitière

Une population mondiale croissante couplée à une interdiction toujours plus importante des produits phytosanitaires implique de trouver des moyens écologiques d'augmenter la productivité des cultures. Nous proposons quelques alternatives de traitements écologiques et rentables pour les cultures de fruits et de légumes.

Plusieurs effets du vinaigre rendent son utilisation dans l'agriculture potentiellement intéressante. Les effets les plus encourageants sont la conservation des fruits, la lutte contre la carie du blé ainsi que l'augmentation de la croissance des cultures.

Une conservation des fruits à l'aide de fumigation ou de trempage dans du vinaigre mènerait à moins de pertes de stockage, et ainsi à une réduction de perte de revenus pour les agriculteurs. Le seul traitement possible contre la carie commune du blé est le traitement de semences. Tout traitement ultérieur n'a pas d'effets sur cette maladie. Il serait intéressant d'utiliser le vinaigre comme agent de traitement. Il représenterait un moyen biologique et facile de lutter contre cette maladie, qui du fait des déclassements du blé, peut mener à de grandes pertes monétaires. Pulvériser les feuilles de pommes de terre avec du vinaigre pourrait augmenter le poids des tubercules, résultant en un rendement plus important.

L'utilisation du vinaigre pourrait mener à plus d'indépendance et d'autonomie pour les agriculteurs, qui pourrait en valorisant les déchets de leur production (fruits non-conformes et excès de céréales) acquérir plus d'indépendance face aux producteurs de produits phytosanitaires et nutritifs.

