

REVIEW

of foreign scientific consultant for dissertation work for PhD-doctoral student Ukibaev Rustam Zhumanbekovich on the topic: "The main pests and diseases of onions and protection from their actions in the conditions of the south-east of Kazakhstan", submitted for the degree of Doctor of Philosophy (PhD) in the specialty 6D081100 - "Plant protection and quarantine"

The third of the ten critical threats identified in the new political direction of the state, where the Strategy "Kazakhstan-2050" is established, is the production of environmentally friendly agricultural products. The third challenge is the threat to global food security.

Currently, in the southeastern regions of Kazakhstan, the main pests of turnips (nematode, root mite, (onion weevil, thrips, sooty moth, onion fly, buzz) and diseases (false white powdery meal (peronosporosis), cervical rot, alternariosis, stemphylliosis, root rot, root rot of seedlings, etc.) increases and damages agricultural products.

The most harmful pests are: onion root mite, thrips, stem nematode, onion fly larvae. In addition, you may also encounter onion soot or weevil, which are less dangerous than the first pests, but can ruin the quality of your product. During the growing season, onions are more damaged by pests.

For pest control, a complex of agrotechnical measures is mainly used: regular weeding of the earth, planting insecticidal plants, manual control of parasites or tillage. Insecticides are not often used, only in special cases. This is based on the fact that the stalk of the processed onion is poisoned.

The purpose of the work: to study the main pests and diseases of turnip in the southeastern region of Kazakhstan and develop effective measures to combat them and offer them for production.

Research tasks:

1. To study the bioecological characteristics (species composition, distribution, development and harmfulness) of the main diseases and diseases of turnip in South-East Kazakhstan;
2. To study the effect of stimulants and growth regulators on the resistance of turnip to pests and diseases and productivity;
3. To select Kazakh and foreign varieties and hybrids of onion-turnip, resistant to diseases and pests;
4. To study of the effect of endophytic fungi on the yield and disease resistance of turnips;
5. To study the action of biological products on the main pests and diseases of turnips;
6. To develop methods for protecting turnips from major diseases and pests in the South-East of Kazakhstan.

Scientific novelty of the work. For the first time, the main pests and diseases of onion in the south-eastern regions of Kazakhstan were studied, methods of combating them were developed and proposed for production.

The main part of the research and practical development was carried out in the Accredited Testing Laboratory of the Kazakh Research Institute of Plant Protection and Quarantine in the research laboratory of the University of Niğde Ömer Halisdemir (Republic of Turkey).

In this regard, the dissertation work of Ukibaev Rustam Zhumanbekovich on the topic: "The main pests and diseases of onions and protective measures against them in the conditions of the southeast of Kazakhstan" is relevant.

The structure of the dissertation Ukibaeva R.Zh. meets the requirements for a doctoral dissertation (PhD). The work is comprehensive, complete and contains all the necessary sections.

The main results of the research were published in 9 scientific papers, of which 1 in a journal included in the Scopus database with a non-zero impact factor, 3 in scientific journals, 5 in international conference proceedings.

Thus, the dissertation work of doctoral candidate Ukibaev Rustam Zhumanbekovich on the topic: "The main pests and diseases of onions and protective measures against them in the conditions of the southeast of Kazakhstan" is a complete scientific study that contains sound theoretical, experimental and practical conclusions and results, and Ukibaev R.Zh. deserves the award of the degree of Doctor of Philosophy (PhD) in the specialty 6D081100 - Plant Protection and Quarantine.

I, as a scientific consultant of Ukibaev Rustam Zhumanbekovich, evaluate the work performed positively. During an internship at the research laboratory of the University of Niğde Ömer Halisdemir (Republic of Turkey), the doctoral candidate showed himself as an active researcher, able to independently plan and conduct scientific research.

Based on this, I evaluate this dissertation work positively and recommend it to be defended for a PhD degree in the specialty 6D081100 - Plant Protection and Quarantine.

Foreign scientific consultant:
Niğde Ömer Halisdemir University,
Niğde, Republic of Turkey
PhD doctor

Halil Toktay


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PhD doctor

Halil Toktay


ОТЗЫВ

зарубежного научного консультанта на диссертационную работу PhD- докторанта Укибаев Рустам Жуманбекович по теме: «Основные вредители и болезни репчатого лука и защитные мероприятия против них в условиях юго – востока Казахстана» представленной на соискание ученой степени доктора философии (PhD) по специальности 6D081100 - «Защита растений и карантин»

Третьей из десяти критических угроз, обозначенных в новом политическом направлении государства, где установлена Стратегия «Казахстан-2050», является производство экологически чистой сельскохозяйственной продукции. Третий вызов – это угроза глобальной продовольственной безопасности.

В настоящее время в юго-восточных районах Казахстана основные вредители лука-репки (нематода, корневой клещ, (луковый долгоносик, трипсы, сажистая моль, луковая муха, жужжание) и болезни (ложнобелая мучнистая мука (пероноспороз), шейковая гниль, альтернариоз, стемфиллиоз, корневые гнили, корневые гнили семян и др.) увеличивается и наносит ущерб сельскохозяйственной продукции.

Наиболее вредными вредителями являются: луковый корневой клещ, трипсы, стеблевая нематода, личинки луковой мухи. Кроме того, вы также можете столкнуться с луковой сажистостью или долгоносиком, которые менее опасны, чем первые вредители, но могут испортить качество вашего продукта. В период вегетации лук больше повреждается вредителями.

Для борьбы с вредителями в основном применяют комплекс агротехнических мероприятий: регулярная прополка земли, посадка инсектицидных растений, ручная борьба с паразитами или обработка почвы. Инсектициды применяют не часто, только в особых случаях. Это основано на том, что стебель обработанного лука отравлен.

Цель работы: изучить основных вредителей и болезней лука-репки в юго-восточном регионе Казахстана и разработать эффективные меры борьбы с ними и предложить их для производства.

Задачи исследовательской работы:

1. Изучение биоэкологической характеристики (видовой состав, распространение, развитие и вредоносность) основных вредителей и болезней лука-репки в Юго-Восточном Казахстане;
2. Изучить влияние стимуляторов и регуляторов роста на устойчивость лука-репки к вредителям и болезням и продуктивность;
3. Селекция казахстанских и зарубежных сортов и гибридов лука-репки, устойчивых к болезням и вредителям;
4. Изучение влияния эндофитных грибов на урожайность и устойчивость к болезням лука-репки;
5. Изучение действия биопрепаратов на основные вредители и болезни лука-репки;
6. Разработка методов защиты лука-репки от основных болезней и вредителей на Юго-Востоке Казахстана.

Научная новизна работы. Впервые изучены основные вредители и болезни лука репчатого в юго-восточных районах Казахстана, разработаны и предложены к производству методы борьбы с ними.

Основная часть исследований и практических разработок выполнена в Аккредитованной испытательной лаборатории Казахский научно-исследовательского института защиты и карантина растений в исследовательской лаборатории Университета Нийде Омер Халисдемир (Турецкая Республика).

В этой связи, диссертационная работа Укибаев Рустам Жуманбекович по теме: «Основные вредители и болезни репчатого лука и защитные мероприятия против них в условиях юго – востока Казахстана», является актуальной.

Структура диссертационной работы Укибаев Р.Ж. отвечает требованиям предъявляемым к докторской диссертации (PhD). Работа носит комплексный, законченный характер и содержит все необходимые разделы.

Основные результаты исследований опубликованы в 9 научных работах, из которых 1 – в журнале, входящем в базу данных Scopus с ненулевым импакт-фактором, 3 – в научных изданиях, 5 – в материалах международных конференций.

Таким образом, диссертационная работа докторанта Укибаев Рустам Жуманбекович по теме: «Основные вредители и болезни репчатого лука и защитные мероприятия против них в условиях юго – востока Казахстана», является законченным научным исследованием которое содержит обоснованные теоретические, экспериментальные и практические выводы и результаты, а Укибаев Р.Ж. заслуживает присуждения ученой степени доктора философии (PhD) по специальности 6D081100 - «Защита растений и карантин».

Я, как научный консультант Укибаев Рустам Жуманбекович оцениваю выполненную работу положительно. Во время стажировки в исследовательской лаборатории Университета Нийде Омер Халисдемир (Республика Турция), докторант показала себя как активный научный сотрудник, способный самостоятельно планировать и проводить научные исследования.

Исходя из этого, данную диссертационную работу оцениваю *положительно* и рекомендую ее к защите на соискание ученой степени доктора PhD по специальности 6D081100 - «Защита растений и карантин».

**Зарубежный научный консультант:
Университет Нийде Омер Халисдемир,
г.Нигде, Республика Турция**

Халил Токтай