

MELON VARIETIES GROWN IN UZBEKISTAN, PEST AND DISEASE CONTROL MEASURES

Rakhmonova Gulzhamol Rakhmanzhanovna

Doctoral student. Research Institute of Plant Protection

Toshkent, Uzbekistan,

guljamol86@mail.ru

Parpievoy Mahmuda Kurbanalievna

Assistant. Tashkent State Agrarian University, Andijan branch.

Andijan city Uzbekistan,

oyatullo78@mail.ru

Abstract:

The creation of pest and disease-resistant varieties of melons is a topical issue among today's agricultural crops. Especially in the fight against pests and diseases, integrated system, the harvest of the melon plants to increase 80-85%. Also in the article the varieties of melons grown in Uzbekistan belong to 4 botanical groups: These are Handalak, Amir, Kassaba, Zard species and the measures taken to control the pests and diseases in them are all covered.

Keywords: melon, melon varieties, pests, disease, and integrated combat system.

Introduction

Currently, in our country among agricultural products, more and more attention is paid to the development of horticulture, melon growing and viticulture. As a result of the created opportunities, the production of vegetables and melons and gourds exceeds 5 million tons [1-3].

It is known that in many melon farms of Uzbekistan, including in the Republic of Karakalpakstan, Khorezm, Bukhara, Navoi, Samarkand, Fergana regions, in desert and semi-desert regions, the cultivation of melon plants began thousands of years ago.

The study of the ecology of plant habitats is a factor in the correct assimilation of the properties of vegetable and melon crops and the correct organization of highly productive cultivation technologies.

Examples of melon varieties common in Central Asia include Central Asian melon varieties and Asia Minor varieties. Central Asian melons are divided into 5 types. Handalak (early ripening melon with a round shape), early or soft-skinned melons, summer hard melons, and autumn and winter melons. Melon is a heat-loving, light-loving plant, resistant to drought and soil salinity. The best melons in the world are grown in Uzbekistan. More than 150 varieties have been created in folk breeding. More than 50 varieties produced and improved on the basis of scientific selection are localized in the Uzbek Research Institute of Vegetable, Melon and Potato.

Melon varieties grown in Uzbekistan belong to 4 botanical groups: Khandalak, Amir, Kassaba, Zard.

Melon varieties belonging to the Handalak group ripen very early, the leaf blade and leaf axils are intact. The fruit is not very large. The shape is round-flat, the pulp is tender, very sweet, aromatic, the taste resembles a pear. The rind is white, red, or green, and the seed mucus is weak and moist. All early maturing varieties. Representatives of this group can be Kokcha, Khandalak, Sarik Khandalak, Zamcha.

Melon fruits belonging to the Amir group are often large cylindrical, elongated, ovoid or elliptical in shape. The flesh is firm, crispy when eaten, juicy, very sweet, white, pale, intense or green in color. Seed mucus is thick and dry (melons such as Amiri, Kokcha, Shirozi, Begzodi).

Kassaba melon varieties mature later. The leaf blades are cut off, and the fruit is medium to large. The shape of the fruit is round-flat, round, often overgrown with a fruit strip, similar to a sucker, sometimes wrinkled. The pulp is usually thin, white, very juicy, sweet, the seeds are weak in mucus, this group includes varieties - Borikalla, Gurvak.

Melons belonging to the Zard group ripen later. The leaf blades of the melons of this group and the surrounding stems are not cut. The fruit is large, elliptical or ovoid. Seed mucus is thick and dry. The Zard group includes varieties of melons Umirboki, Kokbosh, Gulobi.

The following melon varieties are most commonly grown on farms. These are Okurug, Lazzatli, Suyunchi-2, Golden Valley, Tuyona, Amu Darya, Zar Gulobi, Sakhovat, Kichkintoy, Dilkhush, Shirintoy, Burikalla, Koktinka, Kokcha, local yellow Handalak, Obinovovot, Shakarpalk [3-5].

Melon pests and diseases

A sharp decline in crop yields occurs under the influence of pests and diseases. Melons also have their own specialized pests and diseases.

Melon is seriously damaged by the following pests: melon aphid, melon ladybug, root nematode, melon fly ..

The melon aphid belongs to the suborder Aphidinea of the order Homoptera. The body of aphid *Aphis gossypii* is ovoid, 1.25-2.1 mm. It severely damages melons from germination to harvest by sucking them out. Under the conditions of Uzbekistan, it can multiply 12-14 times

The melon ladybird belongs to the Coccinellidae (Coccinellidae) family of the *Epilachna chrysolina* (Coleoptera) order. This herbivorous coccinellid beetle can be quickly identified as it has certain symptoms. The beetle has a semicircular shape, the lower part of the body is flat, the upper part is convex, the size is 7-8 mm, the color is reddish-brown, each of the upper wings has 6 black spots. The gourd ladybird is an oligophage, and she and her larvae damage plants belonging to the pumpkin family. The melon ladybird breeds three

times a year in Central Asia ..

Gall root nematode - *Heterodera marionu* Cornu. Belongs to the class of roundworms, the family of tylenoxides and heteroderids (Neteroderidae). The length of the nematode is 1-1.9 mm. The root nematode hibernates in the body of a dead mother in the form of an egg. Gall root nematode is an omnivorous pest that affects about 1000 plants. It also feeds by clinging to the young roots of the plant. Under the influence of a special fluid released during the feeding period, a tumor (bile) forms at the place of attachment of the larva. In the context of Central Asia, it develops and breeds five times a year.

Melon fly - *Myipardalis pardalina* Bezzi. Belongs to the order Diptera, to the Tephritidae family. It was first discovered on the territory of Uzbekistan and the Republic of Karakalpakstan in 2000. In Kashkadarya, Samarkand and Bukhara in 2004, in Khorezm in 2006, an infestation with melon flies was recorded. In some countries (Afghanistan, Turkmenistan, Uzbekistan) serious losses of 80-90% of melons were recorded.

The pest hibernates as pupae in the puparium at a depth of 10–20 cm in the soil. Flies fly out of winter during the early flowering and fruiting of the melon (in the second half of May). After feeding on the juice of melons and gourds, the insects mate, and the females lay one egg under the skin or 20 or more eggs in one fruit, piercing the skin of the melon or other melon crops with the ovipositor. One female lays 98-130 eggs in one season. After embryonic development of the egg for 2-8 days, larvae appear, which immediately pass into the fetus, feed on the pulp of the fruit, reach the seed and also eat the seed. After they develop for 10–18 days, they come out, piercing the skin of the fruit and go to a depth of 5–15 m into the soil, where they pupate. After 10-18 days, the second generation of flies emerges from the pupae, the female reproduces and lays eggs again. The lifespan of one generation is up to 30 days, and in one season the fly reproduces 3-4 times in Afghanistan, 2-3 in Karakalpakstan and 2-3 in Uzbekistan [5-6-8].

Diseases common in melons:

Ascochitis, fusarium wilting of roots and stems, powdery mildew, alternaria, melon mosaic and others.

Ascochytirosis is caused by the fungus *Ascochyta cucumis*. Ascochytirosis forms round with black pickpids, light gray, gray, often with black edges, 1 cm spots on the leaves (sometimes on the stems and fruits) of melons.

Fusarium wilt of root and stems - *Fusarium sola* is caused by the fungus *f.sp.cucurbitae* gifomycet. There are two physiological races of the pathogen: race 1 affects crops, roots and stems, and race 2 affects only fruits. The fungus infects crops throughout the growing season.

Powdery mildew - caused by the fungus *Erysiphe cichoracearum* White, yellowish-brown or reddish-gray, thin layers of mold develop on both sides of the leaves, and then (at the end of the season) dark cleistotetia spots on them; leaves turn yellow, then darken to black.

Alternaria is caused by the fungus *Alternaria cucumerina*. Basically, cantaloupes are affected, first, small round spots of yellow, brown appear on the upper and upper leaves. The middle of these spots is white. The spots grow and become light brown in color, the fruit can be hit by the sun. The amount of dry matter decreases. Brown spots begin to appear on the fruit.

Melon mosaic is caused by the Squash mozaika virus. There are two races of the virus, they do not infect cucumbers: 1- race, infects melon, common and large-fruited pumpkin, 2nd race besides them also infects watermelon. Yellow spots appear on the leaves of the affected plant, they bubble, the leaves take an ugly shape. Plant height decreases, the number of stems and fruits decreases [5].

Pest and disease control methods. Compliance with agrotechnical methods of crop rotation, deep plowing, winter watering.

Depending on the type of insect pests, using the biological method, it is recommended to use lacewing, a parasite of encarsia against the whitefly.

Chemically, whitefly on 10 ha, Mospilan 20% (25-30 ml), K.E., Cypermethrin 25% (30 ml), K.E. and other drugs. used against aphids.

In Karakalpakstan, decis 2.5% K.E, Cypermethrin 20% K.E, Nurell-D 55% K.E, Canfidor 20% K.E, Karate 10% K.E, Avaunt 15% K. were used against the melon fly. .E, Fufanon 57% EC, Vetricimik 1.8% EC, Karbafost 50% EC, BI 58 (new) 40% EC, Pilgrim 24.7% EC [6 -7-8] ...

In disease control, the development and use of resistant varieties is recommended; Before sowing, carefully selected effective seeds from healthy plants are recommended to be soaked with the preparation Fundazol treated with a fungicide (4-8 g per 1 kg of seeds) or Panactin (4 g per 1 kg of seeds). To prevent diseases, seeds are soaked in certain trace elements before sowing. These include copper, zinc and manganese (0.05% or 0.5 g / kg), terim and barium (0.025% or 2.5% g / kg). Soaking lasts 12 hours when the temperature of the liquid is 20-22 ° C. With the onset of the disease, fungicide spraying, including Bayleton 25% SP (0.2-0.6 kg / ha), Karatan LTS 50% K.E (0.5-1.0 l / ha), Topsin-M 70 % SP (0.8-1.0 kg / ha), Quadris 25% COP (0.4-0.6 l / ha), Ridomil gold 68% WDG (2.5 kg / ha), Strobi 50% WDG or 50% KS (0.2-0.3 kg, l / ha), sulfur in the form of a colloidal or moisturizing powder (2.0-4.0 kg / ha), ISO (0.5-10 liters of solution) and others 1 or 2 times [5].

In a word, agrobiocenosis has technology, useful properties for the cultivation of each type of plant, as well as plant pests and diseases. Our main goal is to grow organic products for the needs of our people and to organize the right methods of pest control without exceeding the criteria of economic harm.

References

1. Abdullaeva Kh.Z., Rakhmonova G.R. Integrated methods of protection against melon flies and its ecological features. // Bulletin of Science and Practice Journal -2018.-No.9.-114-118b.
2. Abdullaeva Kh.Z., Rakhmonova G.R. Useful properties and pests of melons // Journal of Internauka. -No.13 (95), part 2, 2019 p. 54-55.
3. Abdullaeva Kh.Z., Rakhmonova G.R., Parpieva M.K. Useful properties and technologies for growing melons // Journal of Agro iml. No. [57], Toshkent. 2019, p. 37-38.
4. Abdullaeva Kh.Z., Rakhmonova G.R., Azamov A.A. Useful properties of melon and control of its pests // Ekologiya khabarnomasi journal. №7 / 2019 / July. Tashkent, 2019.-14-16 p.
5. Mavlyanova R., Rustamov A., Khakimov R., Khakimov A., Turdieva M. Melons of Uzbekistan. - Tashkent, 2005.-57-135s.
6. Rakhmonova GR, Features of the development of pests of melon in Uzbekistan and measures to combat them // I International book publication of the countries of the Commonwealth of Independent States "BEST YOUNG SCIENTIST-2020". Nur-Sultan, Kazakhstan, 13-17 March 2020, 53-56 p.
7. Ruzimetov R., Ruzimov Yu., Tadzhiyev A., Egamberdiev O. Melon diseases and their examination. –Urgench, 2017. –8-14 p.
8. Toreniyazov E.Sh. Development biology of melon flies and recommendations on control measures. - Nukus, 2009.-413 p.
9. Khodzhashev Sh.T., Gaimov R. Protection of melon fields from pests. // Agricultural magazine of Uzbekistan. -2012. -№8.-17 s
10. Khodzhashev Sh.T. Fundamentals of general and agricultural entomology and an agreed defense system. -Toshkent, 2019.-186-194 p.