SUKHOV, I. M.

Experience in servicing the agricultural aviation. Meteor. i gidrol. no.7:47-48 Jl '57. (MLRA 10:8)
(Meteorology in aeronautics)

are followed by strata of green chlorite schists; the cycle is concluded by iron-bearing violet-brown loamy or dark green, almost black schists. On the basis of this phenomenon the author divides the whole mass of the "thumb" (not containing any fossil organic residues) Paleozoic into three stages or suites which are further subdivided into 7 subsuites (cycles) and 19 horizons (including 3 erosions) (Table 1, Column 9). The age of the entire series was determined to be Ordovician (Ref 13) on the basis of the horizons of the Molodovskiye sandstones which were paleontologically characterized and other findings. Moreover, spores from the group of Trachitriletes and Leiotriletes, as well as shells of Laminarites antiquissimus Eichw. were found in the green schists which are stratified below the Atakskiye sandstones. Due to this fact the sandstones of Kosoutsy could be classified as belonging to the Ripheus and the higher stratified masses up to the Molodovskyie sandstones to the Lower Cambrian. Due to this fact the Middle and Upper Cambrian and a considerable part of the Ordovician could be separated out of the cross section of the Dnestr region (Ref 4). A few years ago

On the Age of the Fossilless Strata of the Lower Paleozoic SOV/20-124-2-44/71
in the Dnestr Region

N. N. Slutskiy found prints in the Atakdye sandstones which the author preliminarily determined as Dictyonema sp. (Fig. 1). This determination was confirmed by A. M. Obut who also pointed out to the distribution of the Dictyonema from the Upper Cambrian to the Lower Carboniferous Visean. According to that, the age of the sandstones mentioned and consequently, of the entire mass is determined to not older than the Upper Cambrian or even younger. It may be concluded from this that in the area of the classic cross sections of the Lower Paleozoic on the Dnestr River a red eluvial crust was formed after the eruption of the riphaic diabase during the entire Cambrian. The beginning transgression of the Ordovician Sea in the Tremadoc formed the sediments of the Lyadavskaya suite. The productive, phosphorite bearing Kalyusskaya suite was deposited during the Arenig period when the transgression attained its maximum. Due to a smaller impulse water intruded in the Caradoc which formed the complex of the Studenitskaya suite. Its sand component - the Molodovskiy horizon - overlain by Silurian characterized paleon-

Card 3/4

On the Age of the Fossilless Strata of the Lower Paleozoic in the Dnestr Region SOV/20-124-2-44/71

tologically, can be still found in the Northern Bessarabiya. There are 1 figure, 1 table, and 13 references, 12 of which are Soviet.

ASSOCIATION: Moldavskiy filial Akademii nauk SSSR (Moldavian Branch, Academy of Sciences, USSR)

PRESENTED: May 12, 1958, by A. G. Betekhtin, Academician

SUBMITTED: January 20, 1958

Card 4/4

S/519/60/000/008/009/031
D051/D113

AUTHOR: Sukhov, I.M.

TITLE: The earthquake of November 10, 1940 in Moldavia and adjacent areas and problems of seismic zoning in the south-western part of the USSR

SOURCE: : Akademiya nauk SSSR. Sovet po seysmologii. Byulleten', no. 8, Moscow, 1960. Voprosy seysmicheskogo rayonirovaniya, 93-98

TEXT: The author describes the tectonic basis of the earthquake of November 10, 1940 in Moldavia and adjacent areas and the work of the special commission of the AN SSSR (AS USSR). This commission, led by V.O. Tsshokher and others, was charged with the investigation of the effects of this earthquake. Suggestions towards improving the Bessarabian section of the map of seismic zoning of the USSR are given. In late 1957, the author visited Rumania to study the geological structure of the Western Carpathians, particularly the Vrancea Mountains, the center of deep-focused earthquakes. It was established that the Vrancea Mountains area is characterized by sunken crystalline

Card 1/2

The earthquake of November 10, 1940...

rocks, a great deal of flysch, and accumulated neogenic sediments. The author considers that, in view of increased knowledge of the geological structure of the subcarpathian zone, east of the Vrancea Mountains, the effects of the 1940 earthquake, can be better explained. The work of the commission of the AS USSR, accomplished mainly in Kishinev, also included local studies of a number of localities in the Moldavskaya SSR. Data supplied by the commission, served as a basis for the maps of seismic zoning of the USSR of 1948 and 1957. The author criticizes seismic zoning as presented on these maps, stating, for example, that Kishinev should belong to point 8 rather than to point 7 of the seismic intensity scale. On a special map the author shows his own system of zonation as compared with the official system. There are 3 figures and 7 Soviet-bloc references.

ASSOCIATION: Moldavskiy filial AN SSSR (Moldavian Branch of the AS USSR)

S/169/62/000/010/026/071
D228/D307

AUTHOR: Sukhov, I.M.

TITLE: Earthquake investigations in Moldavia and its adjoining districts

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 30, abstract 10A192 (Tr. Resp. nauchno-tekhn. konferentsii po vopr. antiseysmich. str-va, 1960, Kishinev, 1960, 16-26)

TEXT: The territory of the Moldavian SSR can be regarded as one of the USSR's seismic zones, since it sometimes experiences the catastrophic earthquakes of the Carpathian region. All available information about earthquakes in the Carpathian region from 455 B.C. to 1960 that also embraced Moldavia was gathered by the seismic station of the Moldavskiy filial AN SSSR (Moldavian Branch, AS USSR) at Kishinev. More complete information is available from 1800. The strongest earthquakes occurred in 1802, 1829, 1838, 1912 and 1940. The catastrophic earthquake of 1802, with its epicenter

Card 1/2

SUKHOV, I. M.

Some characteristics of the seismotectonics of the Carpathian region. Studii astron seismol 6 no.2:187-199 '61.

SUKHOV, I.S., inzh.

New squeezing mechanism for the hot tinning machine. Stal' 20 no.9: 833-834 S '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya.
(Tin plating--Equipment and supplies)

FOKIN, Nikolay Vasil'yevich; SUKHOV, I.V., inzh., red.; TELYASHOV, R.Kh., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Automatic machine for the straightening and cutting of wire] Avtomat dlia rikhtovki i rubki provoloki. Leningrad, 1963. 14 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Mekhanicheskaia obrabotka metallov, no.7) (MIRA 16:5)
(Wire industry—Equipment and supplies)
(Machinery, Automatic)

PUTSILNEK, Karl Yanovich, kand. tekhn. nauk; [illegible]ENTAL', Emanuel' Zamuilovich, inzh.; SUKHOV, I.V., red.; TELYASHOV, R.Kh., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Use of magnetic methods in assembly work] Primenenie magnitnykh metodov pri sborke izdelii. Leningrad, 1963. 16 p. (Leningradskiy dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Mekhanicheskaia obrabotka metallov, no.11) (MIRA 16:11)
(Magnetic fields--Industrial applications) (Metalwork)

BASHMAKOV, Aleksandr Mikhaylovich; KOZLOV, Aleksey Ivanovich; SUKHOV, I.V., red.; TELYASHOV, K.Kh., red.izd-va; GVIRTS, V.L., tekhn. red.

[Lifting-capacity limiter for jib cranes. Self-gripping catch for sheet materials] Ogranichitel' gruzopod"emnosti dlia strelovykh pod"emnykh kranov. Samozazhimnoi zakhvat dlia listovogo materiala. Leningrad, 1963. 17 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom Seriia: Mekhanicheskaia obrabotka metallov, no.12)
(MIRA 16:10)

(Cranes, derricks, etc.--Safety appliances)
(Materials handling--Equipment and supplies)

PERTEN, Yuriy Aleksandrovich, kand. tekhn. nauk; SUKHOV, I.V., red.; GRIGOR'YEVA, I.S., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[New trends in the development of the mechanization of industrial conveying systems] Novye napravleniia v razvitii sredstv mekhanizatsii promyshlennogo konveiernogo transporta. Leningrad, 1963. 24 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Mekhanicheskaia obrabotka, no.5)
(MIRA 16:5)

(Conveying machinery)

PERTEN, Yuriy Aleksandrovich; SUKHOV, I.V., red.; TELYASHOV, R.Kh., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Advanced methods for removing, conveying and processing metal chips] Progressivnye sposoby uborki, transportirovki i pererabotki metallicheskoi struzhki; stenogramma. Leningrad, 1963. 35 p. (MIRA 16:10)

(Metal cutting)

SUKHOV, K. (Moskva)

Single-channel superheterodyne receiver. Radio no.6:36-37 Je '56.
(MLRA 9:8)

(Television--Receivers and reception)

SUKHOV, K., inzh.

With a speed of 2,000 km.per hour. Av.i kosm. 45 no.7:73-78 '62. (MIRA 15:8)

(Aeronautics, Military)

~~Sukhov, N.G.~~

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr. 1954)

Name	Title of Work	Nominated by
Sukhov, N.G.	"Navigation" (textbook)	Ministry of Maritime Riv r Fleet

SO: W-30604, 7 July 1954

SHUNKOV, N. I.

21170 SHUNKOV, N. I. Peredovoy opyt po otkormu svinyey (Sovkhoz "Ostankino". Mosk obl.) Sov. zootekhniya, 1948, No. 3, S. 58-62.

SO: Letopis, No. 32, 1948.

SUKHOV, K. S.

SUKHOV, K. S. "Contribution to the Physico-chemical Characterization of the Filtrable Viruses of Mosaic," in Virus Diseases of Plants in Crimea and in the Ukraind, State Publishing House of Crimea AS SR, Simferopol, 1934, pp. 31-38. 464.32 R99V

So: SIRA SI-90-53, 15 Dec. 1953

SUKHOV, K.S.

SUKHOV, K. S., and LANSHINA, M. M. "Pathological Changes in Plant Cells Caused by the Action of Potassium Iodide (In Connection with the Problem of the Nautre of X-Bodies)," in Virus Diseases of Plants in Crimea and in the Ukraine, State Publishing House of Crimea ASSR,, Simferopol, 1934, pp. 122-124. 464.32 R99V

So: SIRA SI-90-53, 15 Dec. 1953

SUKHOV, K. S.

"The structure of the quiescient kernel in the tissues of embrionic Avena Sativa." (p. 111) Section of Genetics, KHARKOV Scientific Research, Institute of Botany. by Sukhov, K. S.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. VI, 1937, No. 1

SUKHOV, K. S.

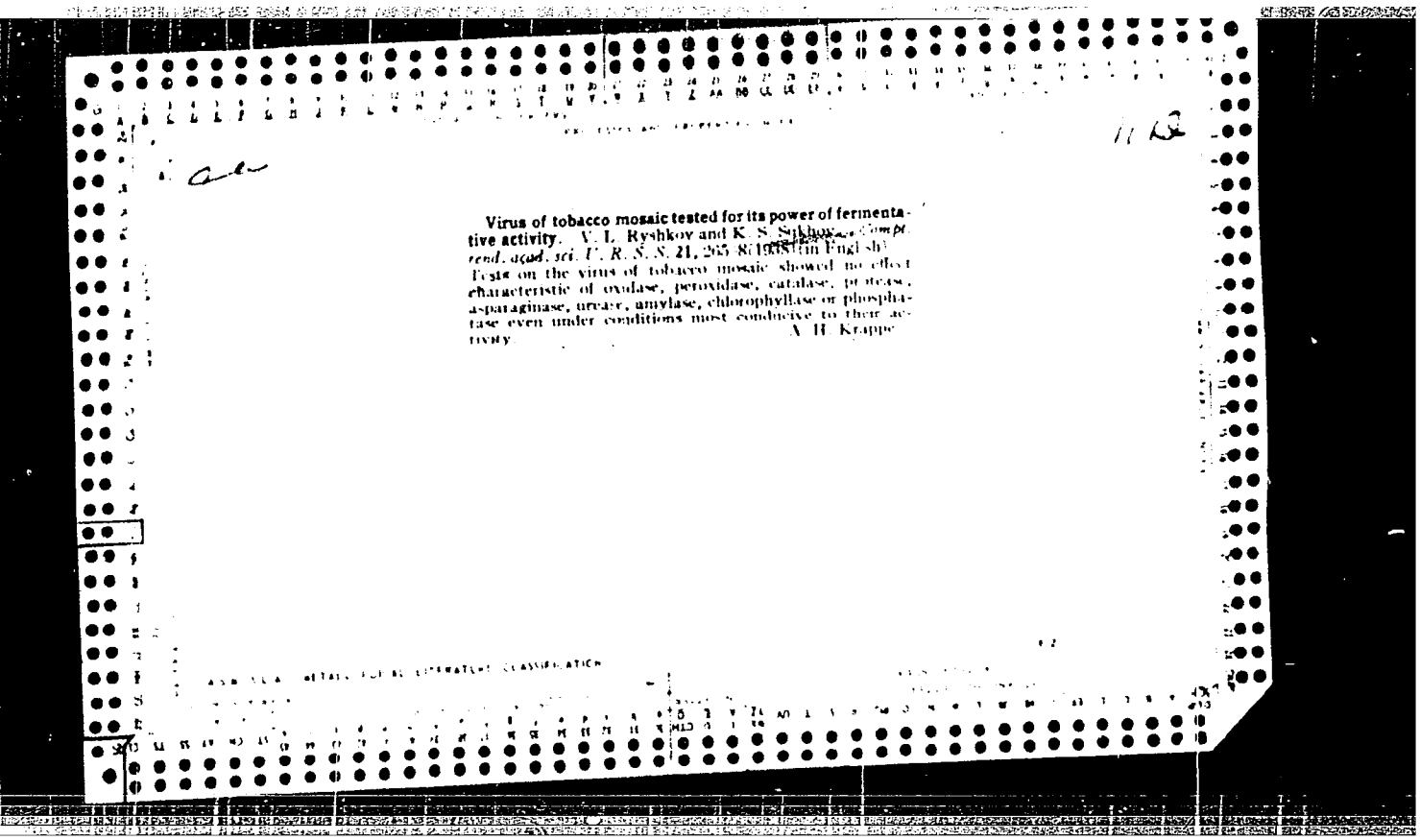
SUKHOV, K. S., and VOVK, A. M. "Mosaic Disease of Oats," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 19, no. 3, 1938, pp. 207-210.
511 P444

So: SIRA SI-90-53, 15 Dec. 1953

SUKHOV, K. S.

SUKHOV, K. S., and VOVK, A. M. "Mosaic of Cultivated Cereals and How It is Communicated in Nature," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 20, no. 9, 1938, pp. 745-748.

So: SIRA SI-90-53, 15 Dec. 1953



Virus of tobacco mosaic tested for its power of fermentative activity. V. L. Ryshkov and K. S. Sytkova. *Compt. rend. acad. sci. U. R. S. S.* 21, 265-8 (1938) (in English). Tests on the virus of tobacco mosaic showed no effect characteristic of oxidase, peroxidase, catalase, protease, asparaginase, urease, amylase, chlorophyllase or phosphatase even under conditions most conducive to their activity. A. H. Krappe

SUKHOV, K. S.

SUKHOV, K. S., and VOVK, A. M. "The Injuriousness of 'Zaboklivanie' of Cats and the Mode of Its Dissemination in Nature," Izvestiia Akademii Nauk SSSR, Seriia Biologicheskaia, no. 1, 1939, pp. 121-124. 511 Sa2B

So: SIRA SI-90-53, 15 Dec. 1953

SUKHOV, K. S.

Publish, P. T. [Co-author] See: Sukhov, K. S. "Delphax striatella Fallen as a Vector of the Virus Disease 'Zakuklivanie' in Grains," 1940.

So: [illegible] - 31-90-[illegible], 19 Dec 1953

R. A. M.

Sukhov (K. S.) & Vovk (A. M.). Закукливание культурных злаков и пути его распространения в природе. [Zakuklivanie (pseudo rosette) of cereal crops and its dissemination in nature.] 47 pp., 22 figs., Leningrad, Publishing Department U.S.S.R. Academy of Sciences, 1940. 1 rouble, 75 kopeks. [Received 1947.]

This is a full account of the authors' studies on the 'zakuklivanie' [pupation] disease of oats [*R.A.M.*, xx, p. 155], most of which has already been reported in this *Review*. Experiments showed that among oat species *Avena sativa* is the most susceptible to the disease (58 per cent. infection) and *A. strigosa* the least (9·2 per cent.). A list of 31 susceptible oat varieties and species is appended.

CA

11D

Intracellular protein inclusions in cereals affected with the mosaic disease "zakuklivanie." K. S. Sukhov. *Microbiology* (U. S. S. R.) 9, 188-95(in English, 196) (1940); cf. Ryzhkov, *C. A.* 34, 2884°.—The disease occurring in certain regions of Siberia affects most cereal grasses. The inclusions in the hairs of awns of barley are most suited for study. They contain looped semi-liquid threads, appearing during the first day of the disease, which later crystallize into needles. These protemic inclusions are tentatively identified as the virus. *Delphax striatella*, when bred on diseased cereals, accumulates the crystals in its intestines. When transferred to healthy plants, the crystals disappear in 7–8 days. *Deltocephalus striatus*, *Cicadula exnotata* and aphids do not contain crystals after feeding on diseased plants. Feeding of the juice of diseased parts did not infect the insects. Inoculation of the juice with a needle gave a pos. result in one expt.

T. Laanes

SUKHOV, K. S.

SUKHOV, K. S. "Zabolivanie (P[illegible]) of C[illegible] Cr[illegible]," S[illegible] i Semenovodstvo, no. 11-12, 1940, pp. 30-33. 61.9 Se5

So: SIRA SI-90-53, 15 Dec. 1953

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001653820009-7"

SUKHOV [SOUKHOFF] (K. S.) & SUKHOVA [SOUKHOVA] (Mme. M. N.).
Interrelations between the virus of a new grain mosaic disease (zakuklivanie) and its carrier Delphax striatella Fallen.—*C.R. Acad. Sci. U.R.S.S.*, N.S., xxvi, 5, pp. 479-482, 1940.

In continued studies on the 'zakuklivanie' [pupation disease: *R.A.M.*, xviii, p. 696; xix, p. 336] at Omsk [West Siberia] in 1939, the authors reared a non-infective generation of *Delphax* [*Delphacodes*] *striatella*, the vector of this virus disease [loc. cit.] on healthy oats grown in isolation. The oat plants remained healthy in spite of the large numbers of these 'sterile' insects, thus showing that the pupation disease is not due to a toxic effect produced by the insect. The infectivity of the pupation disease was proved when larvae of some of these insects were placed on diseased oats and after varying periods transferred to healthy plants, with the result that from 7·5 to 70 (average 32·2) per cent. of the larvae were found to have become infected.

The incubation period in the insect varied widely, averaging from 12 to 16 days, but it was never less than six. Owing to the length of the incubation period, the larvae in their various instars showed a different rate of infection, which was practically nil in the first, but increased with each subsequent instar and reached its maximum in the imago. The rate of infection, however, never exceeded 37 per cent. either under laboratory or field conditions. The larvae were most liable to become infected in their early (first and second) instars, while in the fifth

instar or the imago stage the insects were practically immune. This may furnish an explanation of the fact that in oat fields completely infected by the disease, the number of infective insects diminishes gradually, dropping from 30 to 4·7 per cent. by the end of June. But even in their earlier instars the larvae did not easily become infected; none showed traces of infection after one hour's feeding on diseased oats and only an insignificant percentage after six hours, the highest percentage being reached after two to three days. On the other hand, the infection is easily transmitted by infected insects to healthy plants, in some cases in five or ten minutes. The virus does not multiply in the insects, and in time they lose their infective capacity. That the virus is not transmitted to the next generation was proved by an experiment in which the eggs of ten infected females were transferred to healthy oat plants, more than a hundred larvae being obtained from them; none of these larvae carried the infection.

The ratio of infected insects varied with different fields and different crops in direct proportion to the amount of infection in a given field and crop. Thus, in a field of early oats infected to the extent of 100 per cent., the ratio was between 30 and 37 per cent.; on late oats infected to the extent of 25 per cent., it was 8·5 per cent.; while it was only 4 per cent. on rye, which is generally far less susceptible to infection. When 108 larvae, collected from dry oat stubble on a fallow land devoid of any vegetation just as they were emerging from their winter anabiosis, were transferred to healthy oats growing in isolation, 20·3 per cent. of the larvae were found to be infected. This is taken to indicate that the virus overwinters largely in the body of the insect. Later on, another possibility of overwintering was found in the perennial grasses, such as *Agropyron repens* and *Bromus inermis*, which were, however, infected only to the extent of less than 0·01 per cent. and therefore could not constitute a significant mode of overwintering. The virus was furthermore discovered in the annual weeds *Setaria viridis* and *Panicum* [*Echinochloa*] *crus-galli*, the former representing a serious source of infection because very susceptible to the disease and very attractive to the vector. In experiments with rice, 15 per cent. of the material was successfully infected, while attempts to infect soy-bean failed. The penetration of the virus into the tissues of the oat plant was found to proceed at a rate of 7 cm. per hour.

SUKHOV [SOUKHOFF] (K. S.) & PETLYUK (P. T.). **Delphax striatella Fallen as vector of the virus disease 'zakuklivanie' in grains.**—*C.R. Acad. Sci. U.R.S.S.*, N.S., xxvi, 5, pp. 483–486, 1940.

Investigations into the life habits of the vector of 'zakuklivanie' [pupation disease: see preceding abstract], *Delphax* [*Delphacodes*] *striatella*, showed that the larvae of this insect overwinter on weeds and grasses in field boundaries and meadows adjoining oat and other cereal fields harvested the preceding year. More larvae were found near the boundaries of the fields than further away from them, and as far as could be ascertained, the insects followed the direction of the wind. An oat field protected by a gauze fence 2 m. high escaped infection and no insects were found in it; unprotected oat fields, on the other hand, were infected to an extent of 17 per cent. It is suggested that live hedges may provide

Sukhov [Soukhoff] (K. S.). **On the virus proteins in cereals.** – *C. R. Acad. Sci. U.R.S.S.*, N.S., xxix, 2, pp. 137-138, 1 fig., 1940.

Winter wheat growing near Moscow was found to be affected by a form of mosaic, the external symptoms of which resembled those of the winter wheat mosaic recently reported from Voronezh [*R.A.M.*, xx, p. 396]. Some of the outward symptoms distinguished it from 'zakooklivanie' disease of oats [ibid., xx, p. 156], from which it differed sharply in the absence of protein inclusions from the cells of affected plants. Sections of wheat leaves affected with mosaic, however, when placed in an acid medium, developed numerous needle-shaped crystals up to over 10 μ in length. Microchemical reactions indicated the protein nature of the crystals and their identity with the virus of winter wheat mosaic. The view that the wheat mosaic found near Moscow is probably identical with that reported from Voronezh was supported by the fact that crystals identical with those found in the Moscow wheat were observed in the intestines of *Deltocephalus striatus* [ibid., xix, p. 268], the vector of the Voronezh mosaic.

SUKHOV, K. S.

SUKHOV, K. S. "Zakolivanie (Pupation) of Cereals and Its Vector Delphax Striatella Fallen," in Virus Diseases of Plants and Measures for Their Control, Works of the Conference on Virus Diseases 1940, Publishing House of the Academy of Science USSR, Moscow, 1941, pp. 68-81. 464.32 So8

So: SIRA SI-90-57, 15 Dec. 1953

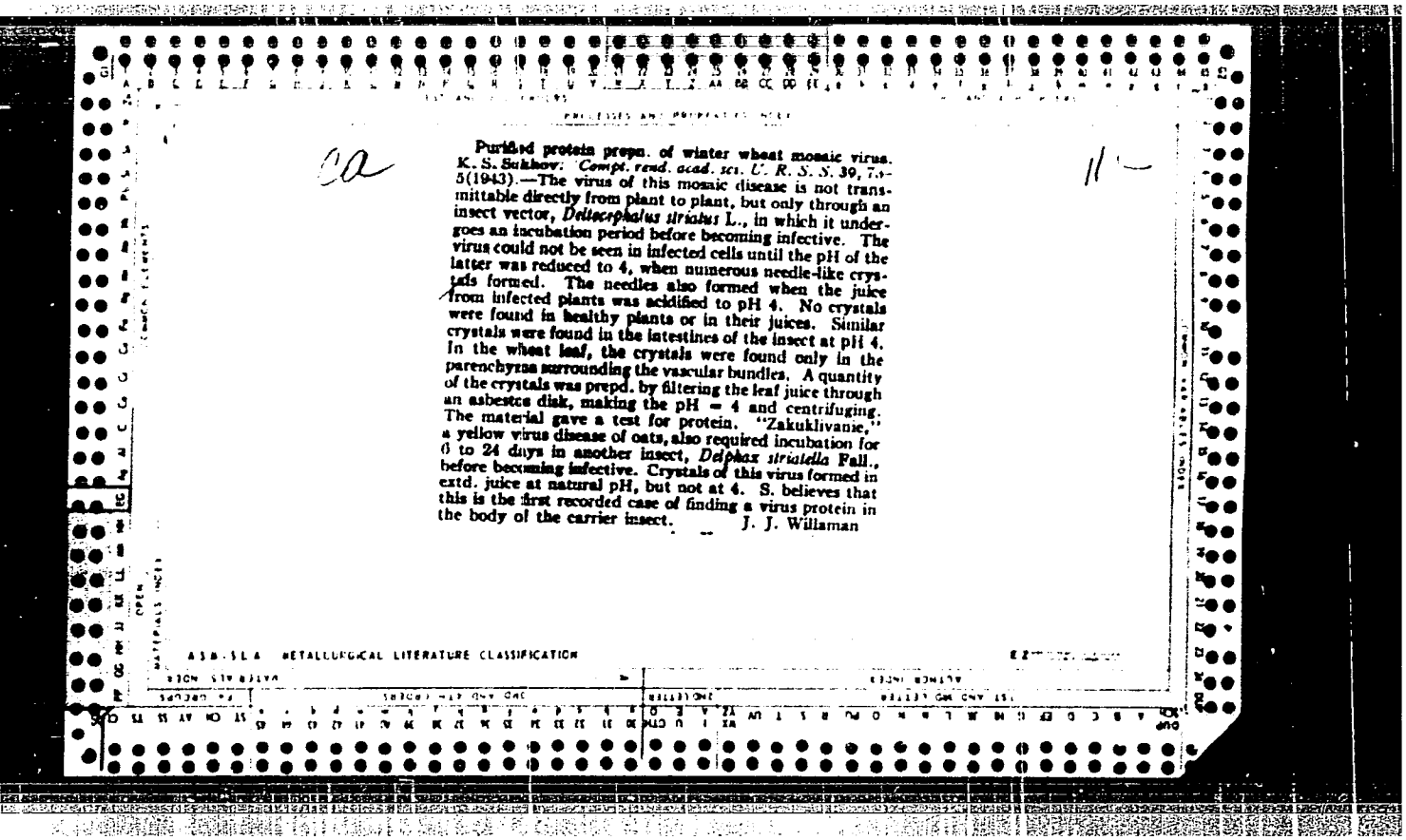
SUKHOV, K. S.

SUKHOV, K. S. Plant Viruses and Insect Carriers, Publishing House of the Academy of Science USSR, Moscow, 1952, 67 pp. 423 Suk

So: SIRA SI-90-53, 15 Dec. 1953

SUKHOV, K. S.

"Peculiarities of Two Viruses Affecting Cereals and Their Carriers", Mikrobiologiya, Vol. 11, No. 4, 1942.



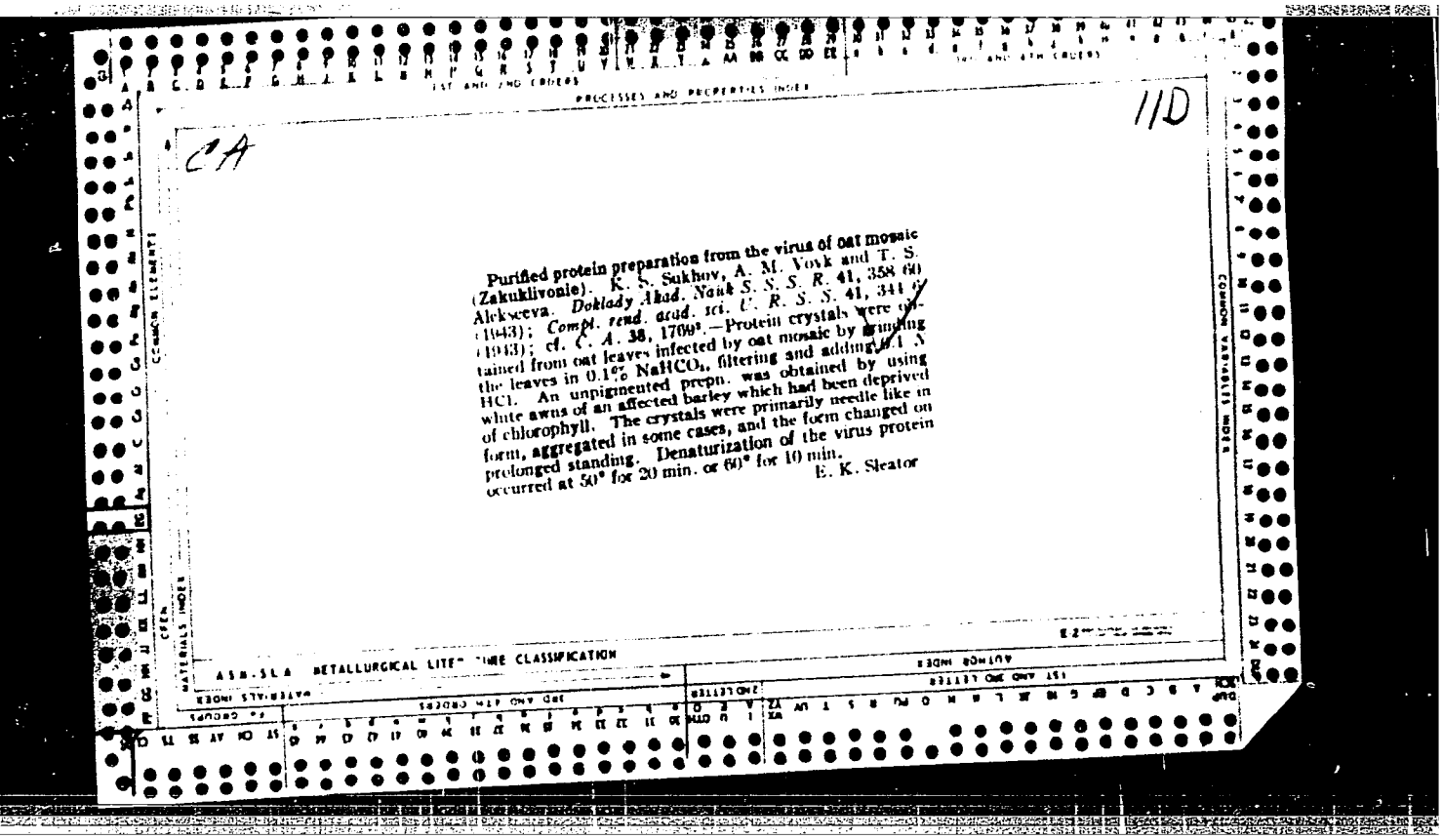
Purified protein prepn. of winter wheat mosaic virus. K. S. Sukhov. *Compt. rend. acad. sci. U. R. S. S.* 39, 7+-5(1943).—The virus of this mosaic disease is not transmittable directly from plant to plant, but only through an insect vector, *Delteocephalus striatus* L., in which it undergoes an incubation period before becoming infective. The virus could not be seen in infected cells until the pH of the latter was reduced to 4, when numerous needle-like crystals formed. The needles also formed when the juice from infected plants was acidified to pH 4. No crystals were found in healthy plants or in their juices. Similar crystals were found in the intestines of the insect at pH 4. In the wheat leaf, the crystals were found only in the parenchyma surrounding the vascular bundles. A quantity of the crystals was prepd. by filtering the leaf juice through an asbestos disk, making the pH = 4 and centrifuging. The material gave a test for protein. "Zakuklivanie," a yellow virus disease of oats, also required incubation for 0 to 24 days in another insect, *Delphax striatella* Fall., before becoming infective. Crystals of this virus formed in extd. juice at natural pH, but not at 4. S. believes that this is the first recorded case of finding a virus protein in the body of the carrier insect. J. J. Willaman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible], [illegible]

"Proof of Infectiousness of a Purified Protein Preparation of Oat Mosaic Virus ([illegible])," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 40, no. 4, 1943, pp. 167-169. 511 P444

SO: SIRA - SI - 90-53, 15 Dec. 1953

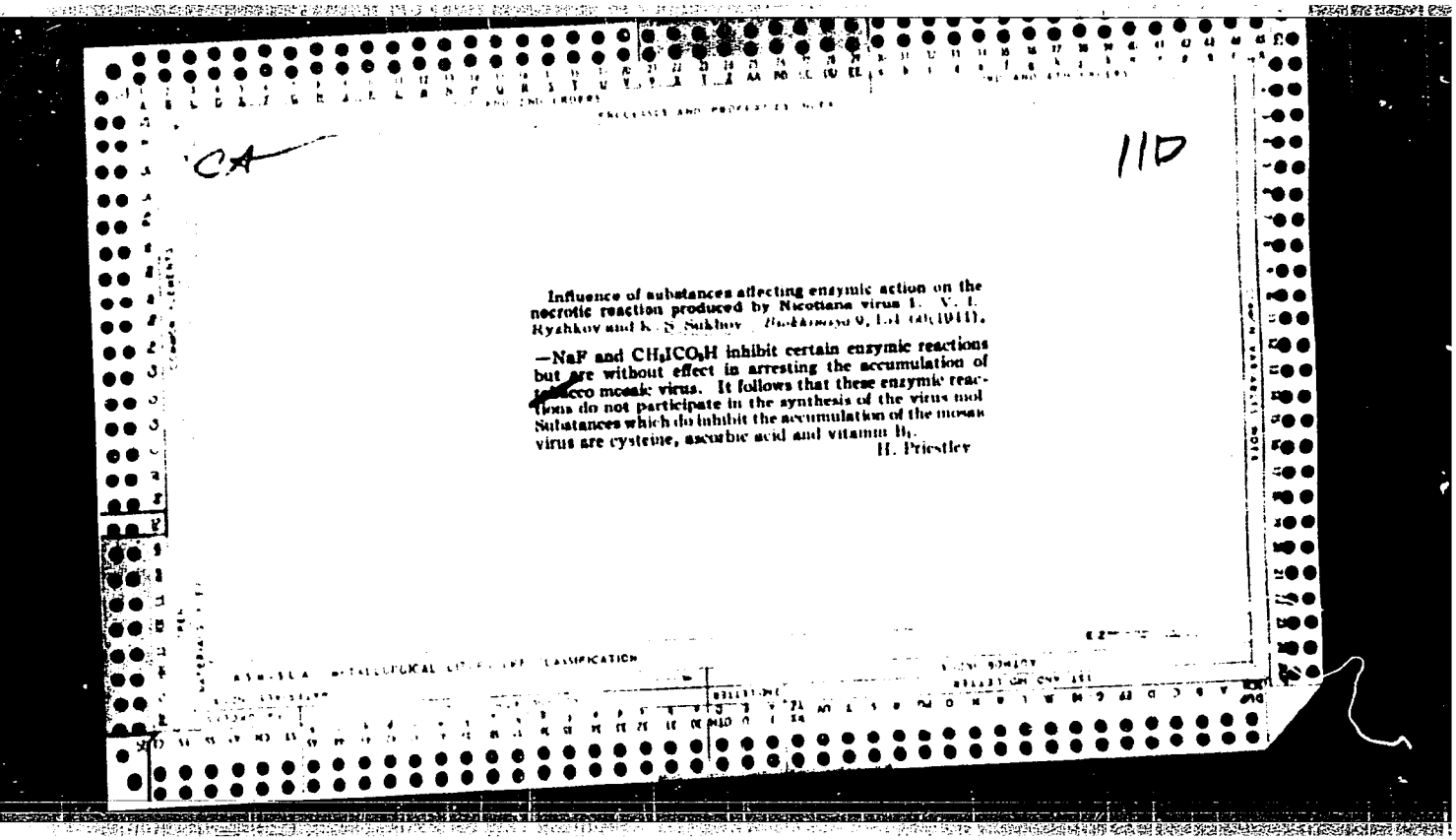


CA

11D

Purified protein preparation from the virus of oat mosaic (Zakuklivonie). K. S. Sukhov, A. M. Vovk and T. S. Alekseeva. *Doklady Akad. Nauk S. S. S. R.* 41, 358-60 (1943); *Compt. rend. acad. sci. U. R. S. S.* 41, 344-6 (1943); cf. *C. A.* 38, 1769⁹.—Protein crystals were obtained from oat leaves infected by oat mosaic by grinding the leaves in 0.1% $NaHCO_3$, filtering and adding 0.1 *N* HCl. An unpigmented prepn. was obtained by using white awns of an affected barley which had been deprived of chlorophyll. The crystals were primarily needle like in form, aggregated in some cases, and the form changed on prolonged standing. Denaturization of the virus protein occurred at 50° for 20 min. or 60° for 10 min.

E. K. Sleator



CA

110

Influence of substances affecting enzymic action on the necrotic reaction produced by Nicotiana virus 1. V. I. Ryzhkov and K. S. Sukhov. *Biokhimiya* 9, 1-4 (in English).

—NaF and CH_2ICO_2H inhibit certain enzymic reactions but are without effect in arresting the accumulation of tobacco mosaic virus. It follows that these enzymic reactions do not participate in the synthesis of the virus mol. Substances which do inhibit the accumulation of the mosaic virus are cysteine, ascorbic acid and vitamin B_1.

H. Priestley

SUKHOV, K. S.

"Virus Diseases of Plants in Kirghiz," Mikrobiologiia, vol. 13, no. 5, 1944, pp. 256-260. 448.3 M582

SO: SIRA - SI - 90-53, 15 Dec. 1953

SURKOV, K. S.

"Salivary Secretion of the Aphis Myzus persicae Sulz. and Its Ability to Form a Filtering Apparatus," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS vol. 42, no. 5, 1944, pp. 226-228. 511 P444

SO: SIRA - SI - 90-53, 15 Dec. 1953

Sukhov (K. S.). **On certain conditions of formation of intracellular virus inclusions.**—*C.R. Acad. Sci. U.R.S.S.*, N.S., xlv, 4, pp. 169–172, 4 figs., 1944.

The author reviews recent work on intracellular virus inclusions and briefly indicates the results of his own work on the viruses of tobacco mosaic, winter wheat mosaic, and oats pseudo-rosette [*R.A.M.*, xxiii, p. 257; xxiv, p. 167].

S.C.L.

Plantig

On the identity of yellow of kok-saghyz and yellow of aster and its possible relation to big bud in tomato. K. S. Sukhov and A. M. Vovk (C. R. Acad. Sci. U.S.S.R., 1945, 48, 365 8; R. A. Abs., 1946, 16, 114) Yellow of kok-saghyz causes serious damage in certain parts of Russia; it is transmitted by *Macrosteles quadripunctata*. The authors assume that the virus is identical with aster yellows, *Callistephus virus 1*, and possibly also with the causal agent of big bud of tomato, *Lycopersicum virus 5*.

125.11

1946

SYKHOV, K. S.

"Transmission of the Mosaic Virus of Tobacco Through Larvae of Plusia gamma L.," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 49, no. 2, 1945, pp. 146-147. 511 P444

SO: SIRA - SI - 90-53, 15 Dec. 1953

R j AM

Sukhov (K. S.) & Vovk (A. M.). Столбур пасленовых и меры борьбы с ним. [Woodiness of Solanaceae and the means of combating it.]—All-Union Scientific Research Institute of the Canning Industry, 32 pp., 10 figs., Moscow, 1946.

In 1945 the virus disease causing woodiness in tomatoes [*R.A.M.*, xiii, p. 133; xiv, p. 130] reduced greatly the yields of tomatoes, potatoes, chilli pepper, and eggplant in the U.S.S.R. The disease was reported from the Moscow area, South Ukraine, Moldavia, Caucasus, the Krasnodar district, Crimea, the Rostov area, also from Central Asia—South Kazachstan, Kirghiz, and Uzbekistan. In the Krasnodar district 30 per cent. of the chilli and eggplants withered and died as a result of infection and also 70 per cent. of the early potatoes and 52 per cent. of the summer varieties. In the Crimea eggplants and chillis suffered 50 to 70 per cent. loss, early potatoes 40 to 70 per cent., and tomatoes 40 to 60 per cent. The withering was attributed to woodiness virus [tomato big bud virus; ibid., xxvi, p. 135].

In the course of experiments in 1945 the authors found that the potato yellows disease, the symptoms of which were identical with those of the potato disease due to aster yellows virus in the United States [ibid., xxvi, p. 411] was also due to the woodiness virus. In the Moscow area, where yellows was widespread, cuttings from a diseased potato plant were grafted on to ten healthy tomato plants. After 18 to 20 days leaf chlorosis and all other symptoms of woodiness developed.

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SUKHOV, K. S.

"Virus Proteins and the Phenomena of Inheritance (Their Role in the Transmission of Disease)," Agrobiologiia, no. 4, 1946, pp. 84-96. 20 Ag22

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S.

"Stalour of Potatoes," Doklady Vsesoyuznoi Akademii Sel 'skokhozyaistvennykh Nauk imeni V. I. Lenina, vol 11, no. 1-2, 1946, pp. 24-29. 20 Akl.

SO: SIRA - SI - 90-53, 15, Dec. 1953

SUKHOV, K. P.

"Means of Distribution of Stolbur Virus in Nature," in Reports of the Scientific--Research Work for 1946, Department of Biological Science, Publishing House of the Academy of Science USSR, Moscow, 1947, pp. 152-153. 511 Ak144

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S.

"The Nature of Mass Wilting in the South of Potatoes, Peppers and Eggplant," in Reports of the Scientific-Research Work for 1945, Department of Biological Science, Publishing House of the Academy of Science USSR, Moscow, 1947, pp. 153-154. 511 Ak144

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S.

USSR/Medicine - Viruses
Medicine - Plants

Jul/Aug 1947

"Relationship of the Reproduction of the Tobacco Mosaic Virus to the Stage of Development of the Plant-Host," K. S. Sukhov, A. M. Vovk, 14 pp

"Agrobiyologiya" No 4

This article, well illustrated by diagrams and tables of experimental results, was submitted to the Institute of Genetics of the Academy of Sciences of the USSR. The albumin virus' reproduction is dependent on the condition of the plant-host. The stage of development of the plant-host effects the reproduction of the virus. The location and topography of

23T73

USSR/Medicine - Viruses (Contd.)
Medicine - Plants

Jul/Aug 1947

the area surrounding the plant-host have great effect upon the development of the virus. All changes in the process of reproduction are closely related to the course of synthesis or the course of hydrolysis.

23T73

SUKHOV, K. S.

"New Data on Stolbur of Potatoes," Sovetskaia Agronomiia, vol. 5, no. 4, 1947, pp. 72-75. 20 So84

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S., and VOVK, A. N.

Mbr., Laboratory of Virus Diseases of Plants, Institute of Microbiology, Acad. Sci., -1946-.

Mbr., Genetics Inst., Acad. Sci. -1947-.

"Hyalesthes Obsoletus Sign., Transmitting Agent of Big Bud (Stolbur) Virus in Solanaceae," Dok. AN, 53, No. 2, 1946

"The Dependence of the Reproduction of the Tobacco Mosaic Virus on the Synthetic Activity of the Protease of the Host Plant," Dok. AN, 57, No. 6, 1947

"New Virus Disease of the Tomato, the Curling of Its Leaves, and the Carrier, Agallia Venosa Fall.," Dok. AN, 56, No. 4, 1947

USSR/Medicine - Viruses Oct 1947
Medicine - Plants - Diseases

"Stolbur Virus, Cause for Mass Wasting of Peppers, Eggplants, and Potatoes in the South," K. S. Sukhov, A. M. Vovk, Inst Genetics, Acad Sci USSR, 2½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 2

Discusses some of the characteristics, properties, and carriers of this rather widespread cause of withering of subject plants, as well as some measures for combating this virus disease. Submitted by Academician N. A. Maksimov, 12 Jun 1947.

49150

BUKHOV, K. S.

"On the origin of viruses (O Prioskhozhdenii virusov), published by the All-Union Society for the Dissemination of Political and scientific Knowledge, 1948.

SUKHOV, K. S.

USSR/Medicine - Plant, Parasites Jan/Feb 1948
Medicine - Tobacco

"Substrata from Which the Tobacco Mosaic Virus Grows during Autoreproduction," K. S. Sukhov, Dr Biol Sci, Genetics Inst, Acad Sci USSR, 2 pp

"Agrobiologiya" No 1

New data permits better account of the reproductive system of the virus nucleoproteid which is the generator of tobacco mosaic. Explains dual character of the substrata. Data clarifies the fact that chemical composition of the virus is dependent on the functional condition of the plant-host.

LC 51761

SUKHOV, K. S.

"Withering of Potatoes in the South (Stolbur)," Sad i Ogarod, no. 2, 1948, pp. 63-66.
80 Sal3

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S.

"New Method for the Control of Big Bud in Solanaceae," Sad i Ogorod, no. 3, 1948, pp. 57-58. 80 Sal3

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUK [illegible] V, K. S.

SUK [illegible] V, K.S. "Virus of Cancerous New Growths in Plants," Priroda, vol. 37, no. 8, 1948, pp. 60-62. 410 P44

SO: Sira Si-90-53 15 Dec. 1953

SUKHOV, K. S.

"Effect of Length of Day on the Reproduction of Tobacco Mosaic Virus in the Tissues of a Tobacco Hybrid," Doklady Akademii Nauk SSSR, vol. 59, Feb. 21, 1948, pp. 1205-1207. 511 P444A

SO: SIRA - SI - 90-53, 15 Dec. 1953

SUKHOV, K. S.

PA 11/49T53

USSR/Medicine - Plants, Diseases Jul 48
Medicine - Tomatoes

"Mechanism of Relative Sensitivity of Stem-Type Tomato Plants to Plant Virus Disease," K. S. Sukhov, A. M. Vovk, Inst of Genetics, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 2

Reports experiments. Tabulates results. Probable that phloem sap of stem tomato plants is more closely akin to parenchyma sap, regarding pH value, than is the case with nonstem tomatoes. This reacts adversely on the Cicadas, hence the stem plant is relatively immune to virus disease. Submitted 3 May 48.

11/49T53

SUKHOV, F. S.

SUKHOV, F. S. "Virus Diseases," in Sel'skokhoziaistvennaia Entsiklopediia, State Publishers of Agricultrual Literature, Moscow, 1949, Ed. 3, vol. 1, pp. 328-329. 30.1 Se42 Ed.3

SO: Sira Si-90-53 15 Dec. 1953

SUKHOV, K. S.

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SO: Sira ~i-90-53 15 Dec. 1953

SUKHOV, K.S.

D.I. Ivanovskii - founder of the science of filtrable virus. Izv.Akad. nauk SSSR Ser.biol.,Moskva No.6:3-21 Nov-Dec 50. (CIML 20:4)

SUKHOV, K. S.

SUKHOV, K. S., and VOVK, A. M. "Relation of Hereditary Reaction of Nicotiana Species to Tobacco Mosaic Virus and to Temperature," Trudy Instituta Genetiki, no. 17, 1950, pp. 232-235. 442.9 P44

SO: Sire Si-90-53 15 Dec. 1953

SUKHOV, K. S.

SUKHOV, K.S., and VOVK, A.N. "Differences Between Northern and Southern Big Bud of Potatoes," Tudy Instituta Genetiki, no. 17, 1950 pp.236-238. 442.9 P44

SO: Sire Si-90-53 15 Dec. 1953

[illegible]KOV, K. S. and [illegible]OVA, G. S.

"Physiological Conditions Stimulating Reproduction of the Tobacco Mosaic Virus in Plant Cells", Trudy Inst Genetiki, Ak Nauk SSSR, No. 18, pp 237-246, 1950.

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"Physiological conditions which stimulate the reproduction of tobacco Mosaic Viruses in plant cells," Trudy Inst Genetiki, AN SSSR, Vol. p 258, 1950.

SUKHOV, K. S.

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SO: Sira Si-90-53 15 Dec. 1953

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"Physiological Conditions Stimulating Reproduction of the Tobacco Mosaic Virus in Plant Cells," Trudy Inst Genetiki, Ak Nauk SSSR, 1950, No 18

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00-W-24635.

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"Variability in the Tobacco Mosaic Virus Upon Passage Through the Organism of Plants of Various Species," Trudy Inst Genetiki Ak Nauk SSSR, 1950, No 18

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SUKHOV, K. S.

USSR (600)

Viruses

Science of viruses; Priroda no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, May 1952. Unclassified.

GTRSPL Vol. 5 No. 1 Jan. 1962

[illegible] K.S., D.I. Ivanovski -- founder of the study of filtrable viruses, 1-21 ..

Izvestiya Akademii Nauk, S.S.S.R., Seriya Biologicheskaya No. 6

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SO: East European Accessions List, Vol 3, No 8, Aug 1954.

SUKHOV, K. S.; VOVK, A. M. ; MUSHNIKOVA, K. S.

Tomatoes - Diseases and Pests

Effective test for DDT dust in controlling the tomato stalk borer. Dokl. Ak. sel'khoz. 17 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

USSR/Biology - Genetics Jun 52
Medicine - Viruses

"Concerning the Conditions of the Reproduction of Virus Nucleoproteids in Plant Cells," K. S. Sukhov

"Trudy Inst Genetiki" No 19, pp 222-239

In connection with a review of the subject which is based principally on work by US and Japanese investigators (22 refs), outlines research in this field done by USSR investigators (16 refs).

Mentions (1) work by O. I. Shvetsova (1950), who proved that the polyhedric disease affects certain insects only when they receive a definite diet; (2) work by himself showing that nitrogen starvation impedes the propagation of the virus in infected plants; (3) that the propagation of viruses is stimulated by reducing the length of exposure of plants to daylight; (4) that viruses do not exhibit any enzyme activity; (5) work by V. I. Tovarnitskiy showing that influenza virus can be reversibly inactivated by globin, papain, cytochrome C, clupeine. On the basis of some of the morphological data cited, assumes that stages or phases of the development of virus nucleoproteids may exist. States that further research ought to be done (1) to clarify the genetic connection between virus nucleoproteids and protoplasm nucleoproteids and (2) to verify hypotheses in regard to genetic connection between viruses and bacteria, the spontaneous formation of viruses, and related phenomena.

(3) 24477

SUKHOV, N. S.,

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SO: SIRA SI-90-53 19 Dec. 1953

SUKHOV, K. S. and KOSIKOV, K. V.

"Recent USSR Work on the Ontogenesis, Modification, and Selection of Microorganisms," Mikrobiologiya, 21, No.6, pp 754-760, 1952

Translation W-25892, 21 Apr 53

SHIKOV, K. S.

"Problems in the Study of Viruses," Priroda, vol. 41, no. 2. 1952, pp. 18-25.
410 P933

So: Sira - Si-90-53, 15 Dec. 1953

SUKHOV, K. S.

Virus Diseases of Plants

New research in virus diseases of plants in Czechoslovakia. Priroda 41 no. 5, 1952

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

SUKHOV, K.S.

Virus of tobacco chlorosis. Doklady Akad. nauk SSSR 85 no. 6:1381-1382 21 Aug 1952. (CLML 23:3)

1. Presented by Academician A. I. Oparin 24 June 1952. 2. Institute of Genetics, Academy of Sciences USSR.

SUKHOV, K.S.

Species formation in viruses. Izv. Akad. nauk SSSR; Ser. biol. no.3: 3-15 May-June 1953. (CIML 25:1)

SUKHOV, K.S.; VOVK, A.M.

New form of "needle-shaped" strain of tobacco mosaic virus found under experimental conditions. Trudy Inst.gen. no.20:265-269 '53. (MLRA 7:1)
(Mosaic disease)

SUKHOV, K.S.; RAZVYAZKINA, G.M.

Mottled top of makhorka, its causative agent and transmitter. Trudy Inst.gen. no.20:270-282 '53. (MLRA 7:1)
(Chlorosis (Plants)) (Tobacco--Diseases and pests)

SUKHOV, K.S.

Nature of viruses. Mikrobiologiia, Moskva 22 no.3:316-324 May-June 1953. (CIML 25:5)

SUKHOV, K.S.;SOLOV'YEV, B.M.;NIKIFOROVA, G.S.

Effect of formaldehyde derivatives of norsulfazol on tobacco mosaic virus. Doklady Akad. nauk SSSR 88 no. 3:559-560 21 Jan 1953.
(CLML 24:1)

1. Presented by Academician A. I. Oparin 20 November 1952.

SUKHOV, K.S.; NIKIFOROVA, G.S.

The size of particles of tobacco mosaic virus in various periods of reproduction and under conditions of deprivation of the host-plant of nitrogen. Doklady Akad. Nauk S.S.S.R. 90, 469-71 '53. (MLRA 6:5) (CA 47 no.17:8839 '53)

Electron-microscopic investigation shows that the virus particles are unusually short at an early stage of infection (denoting rapid reproduction) as well as at a late stage of infection under conditions of nitrogen starvation of the host plant. In the first case, the titer of the virus (i.e., its capacity to infect) is below normal, while in the second case it is no lower than that of virus consisting of particles which have a normal length. Presented by Acad A. I. Oparin 23 Mar 53.

260T3

SUKHOV, K.S.; NIKIFOROVA, G.S.; OPARIN, A.I., akademik.

Spiral-like structure of particles of the tobacco-mosaic virus. Dokl.AN SSSR 90 no.4:671-672a Je '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Oparin). 2. Institut genetiki Akademii nauk (for Sukhov, Nikiforova). (Mosaic disease)

SUKHOV, K.S.; NIKIFOROVA, G.S.; OPARIN, A.I., akademik.

Aggregation of the tobacco-mosaic virus in plant cells, during the early period of reproduction. Dokl.AN SSSR 90 5:901-903 Je '53. (MLRA 6:5)

1. Institut genetiki Akademii nauk SSSR (for Sukhov, Nikiforova). 2. Akademiya nauk SSSR (for Oparin). (Mosaic disease)

KOSIKOV, K.V.; SUKHOV, K.S., doktor biologicheskikh nauk, otvetstvennyy redaktor; REDIN, Ye.I., redaktor; NEVRAYEVA, K.A., tekhnicheskiy redaktor

[Genetics of yeasts and methods of selection of yeast cultures] Genetika drozhzhei i metody selektsii drozhzhevykh kul'tur. Moskva, Izd-vo Akademii nauk SSSR, 1954. 326 p. (MLRA 7:10)
(Yeast)

SUKHOV, K. S.
USSR/Agriculture - Biology FD 280

Card 1/1

Author : Sukhov, K. S.

Title : Virus diseases of agricultural plants and measures for their control.

Periodical : Izv. AN SSSR. Ser. Biol. 3, 49-61, May/Jun 1954

Abstract : Much experimental work has been done by the Soviet virologists in connection with the study of viruses and diseases they cause in plants. Theoretical discovery of D. I. Ivanovskiy made it possible to make an exact diagnosis of tobacco mosaic. Tobacco mosaic was one of the first virus diseases studied. Knowledges of other virus diseases is recent and some of them have not yet been diagnosed. Losses from wilt diseases, caused by viruses, can be reduced somewhat by crop rotation and avoidance of fields where such diseases have damaged previous crops. The greater losses resulting from virus disease are caused by the mosaics of winter wheat. Virus diseases of vegetable crops have been found mostly in southern areas of the USSR where most of diseases of potato viruses are transmitted by some sucking insects. Spraying plants with chemicals like DDT dusts is recommended in certain cases. Thirty two references, all USSR. Illustrations.

Institution : Institute of Genetics, Academy of Sciences USSR

Submitted : February 12, 1954

SUKHOV, Konstantin Stepanovich; RAZVYAZKINA, Galina Mikhaylovna; PERKEL'-skiy, A.A., redaktor; GUBER, A., tekhnicheskiy redaktor.

[Biology of viruses and virus diseases of plants] Biologiia virusov i virusnye bolezni rastenii. Moskva, Gos. izd-vo "Sovetskaia nauka" 1955. 226 p. (MLRA 9:5)
(Viruses) (Plant diseases)

SUKHOV, K.S., professor.

Variability of viruses in mixed infections. Izv.AN SSSR Ser.biol. no.5:80-88 S-O '55. (MLRA 9:2)

1.Institut genetiki Akademii nauk SSSR.
(VIRUSES)

SUKHOV, K.S.

Variability of viruses in the case of combination infections.
Trudy Inst.gen.no.22:168-180 '55. (MLRA 9:4)
(Virus diseases of plants)

Virus like particles in the juice of Epiphyllum, the cells of which contain crystalline proteins. K. S. Sukhov and G. S. Nikiforova. *Doklady Akad. Nauk S.S.S.R.* 103, 721(1955).—Examn. under an electron microscope of the juice of *Epiphyllum* showed a frequent cell inclusion in the form of spindle-shaped particles. The shapes of these are reproduced. These are of dimensions of tobacco mosaic virus particles and like the latter these particles tend to aggregate at their ends, forming wavy aggregates. It is suggested that these inclusions are rodlike particles of virus nature.

G. M. Kosolapoff

SUKHOV, K.S.; NIKIFOROVA, G.S.

Crystalline inclusion of tobacco mosaic virus in the plastids of mosaic tobacco. Dokl.AN SSSR 104 no.5:786-788 O '55.(MLRA 9:2)

1.Elektronnaya laboratoriya Otdeleniya biologicheskikh nauk Akademii nauk SSSR. Predstavlene akademikom A.I.Oparinym.
(Mosaic disease) (Viruses)

SUKHOV, K.S.; KAPITSA, O.S.

Reproduction of the tobacco mosaic virus in the first hours following the inoculation of the leaves of Nicotiana glutinosa. Dokl.AN SSSR 105 no.6:1346-1349 D '55. (MIRA 9:4)

1.Institut genetiki Akademii nauk SSSR. Predstavlene akademikom A.I.Oparinym.
(Mosaic disease)

SUKHOV, Konstantin Stepanovich; OPARIN, A.I., akademik, otvetstvennyy redaktor; STRESHINSKIY, M.O., redaktor izdatel'stva; SHEVCHENKO, G.N., tekhnicheskiy redaktor

[Viruses] Virusy. Moskva, Izd-vo Akademii nauk SSSR, 1956. 369 p.
(VIRUSES) (MLRA 10:1)

"The Problem of Variability of Phytopathogenic Viruses,"

The Problem of Thereditary Variation of Phytopathogenic Viruses," papers given at the International Genetics Symposia, 6-12 Sept, 1956, English Translation.

Doc: A-3069259, 26 Dec 1956

USSR/Virology - Plant Viruses. E-1

Abs Jour : Ref Zhur - Biol., No 8, 1958, 33536

Author : Sukhov, K.S., Kapitsa, O.S.

Inst :

Title : (Napravlennaya izmenchivost Kh-virusa kartofelya pri smeshannoy infektsii s virusom tabachnoy mozaiki).
A Directed Change of Potato X-Virus in Mixed Infections with Tobacco Mosaic Viruses.

Orig Pub : Izv. AN SSSR, Ser. biol. 1956, No 3, 53-64

Abstract : It was clarified that a change in viruses may occur in a mixed infection by unrelated viruses, which do not produce crossing serological reactions. In a joint cultivation of a cyphomandrate strain of tobacco mosaic virus with a potato X-virus (X_2), a strain of potato virus formed (X_3) which differed from the initial one, caused severe symptoms on tobacco, stramonium and

Card 1/2