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OCCUPATIONAL DERMATOSES IN FARMERS - A PROPOSAL FOR DIAGNOSTIC PROCEDURE

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Abstract: The article presents a proposal for diagnostic procedures in cases of suspected occupational dermatosis in farmers. The process of certifying a disease as occupational is difficult because of lack of the monitoring of occupational risks in private farms; moreover, there is no compulsory medical assessment before one starts work as a farmer. Many patients meet an occupational health professional for the first time when the disease is already advanced and legal action towards obtaining an occupational rent has already been issued. In these circumstances, confirming or rejecting the possible occupational etiology of a given dermatosis is very difficult. This article presents a diagnostic procedure which has been devised by the author and used with some success for two years at the Institute of Agricultural Medicine, Lublin, Poland.

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Key words: occupational skin diseases, farmers, diagnostic procedure, occupational exposure, medical assessment.

INTRODUCTION

It is generally agreed that many improvements are needed in the field of occupational medicine in farming [8, 20]. According to statistics published by the Polish Agricultural Social Insurance Fund, in 1997 skin diseases formed 10.8% of all newly acknowledged occupational diseases in farmers in Poland, while the respective figures for 1995 and 1996 were 11.2% and 13.4% [5]. According to German statistics, in 1994 a total of 559 farmers with skin problems had been subjected to medical evaluation because of possible occupational dermatosis. In the same year, 37 occupational skin diseases in farmers were acknowledged and compensated which comprised 12.9% of all occupational diseases in farmers [1]. According to Finnish studies, farmers constitute a population with enhanced risk for developing hand eczema [9], and cow epithelium is in Finland an important causative agent [10].

In the working environment, there are numerous factors hostile to the farmer's skin. Among these, physical, biological, and chemical factors may be listed. Physical factors include kinetic energy, high and low temperature and radiation. Aside from major injuries to the skin, kinetic energy may cause microtraumas, often not noticed by farmers. These may be provoked by working with an axe or a rake, operating any machinery without servo-handling, especially when not wearing protective gloves. The effects of these microtraumas may accumulate and contribute to the development of skin diseases. Skin injuries caused by heat and cold include not only burns and frostbites - prolonged exposure to atmospheric cold or heat during work may induce irreversible changes in the skin. Ultraviolet radiation, another physical factor to which farmers are heavily exposed, accelerates degeneration of skin (so-called photoaging). This condition is so prevalent among farmers that it is referred to as "farmer's skin". The UV-provoked skin degeneration is not uncommonly an initial phase for skin cancer. Biological factors may be roughly divided into infectious and non-infectious agents. The elements soil, water and air to which the farmer is

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continuously exposed, contain considerable amounts of infectious agents. Fungal infections of the skin are especially typical of agricultural workers. Each day, farmers spend several hours in rubber boots which provide an ideal microclimate for the development of fungal feet infections. Moreover, bacteria, fungi and viruses causing animal disorders in cases of close contact may also invade breeders. These conditions are known as skin zoonoses, and all kinds of pathogens are involved: fungi (e.g. microsporasis and trychophytiasis from infected cattle), bacteria (erysipeloid from swines) and viruses (foot and mouth disease from sheep or "milkers' nodules" from cattle). In hot climates parasites (e.g. worms) are also a real hazard to farmers. Plants may also be hostile to the farmers' skin, causing inflammation referred to as *dermatitis venenata*. In Europe, meadow weeds, mainly from the family *Umbelliferae*, produce large amounts of photosensitizing agents. Contact with *Umbelliferae* and subsequent exposure to sun rays results in developing so-called meadow dermatitis. Also, invisible particles of animal hairs, plant dusts, etc. may provoke allergic and immunotoxic reactions in the skin. Chemical factors, especially under regular exposure, are capable of causing irritant contact dermatitis. In the case of most farmers, irritant contact dermatitis is caused by petrol, diesel fuel, detergents, and disinfectants, whereas allergic contact dermatitis is mostly caused by technical oils and fats, fertilizers, and pesticides. For example, pronounced allergizing properties are characteristic of the insecticide chlorfenvinphos and the herbicide 2,4-dichlorophenoxyacetic acid.

Table 1. Sources of difficulties in diagnosing work-related skin disease in farmers.

- Time-consuming and detailed history taking of disease and environmental exposure is needed in every case.
- Finding the etiological factor requires individual procedures in every case.
- Introducing routine procedures into diagnostics is almost impossible - the need for performing an additional test must always be taken into account.
- Proving the causative role of a suspected occupational agent is often very complicated; in many cases, elaborating special diagnostic methods to fit to an individual case may be needed.
- Cooperation between different specialists (in medicine, botany, microbiology, chemistry, toxicology, aerobiology, etc.) is needed.

Table 2. Proposed features of an optimal diagnostic standard for occupational dermatoses in farmers.

A. Questionnaire for taking patient's history

- Simple enough to be completed properly by trained personnel.
- Clear enough to produce similar results if performed by two independent reviewers.
- Detailed enough to enable the analysing expert to trace the possible causative factor for further examination.
- Free from irrelevant questions which might be interesting for the examiner but are of no importance for the diagnostic process in the patient (these compete for the examiner's time and attention with virtually important information).
- Any suggestive questions should be avoided in order to exclude possible bias.
- Questions should be clear, so that both examiner and patient have no doubt about their meaning.
- Information from the questionnaire should enable the physician to select diagnostic procedures needed in a certain patient.
- The questionnaire should also fill the gap caused by lack of monitoring of hazards on private farms in Poland; it should be a source of possibly reliable information about duration and intensity of exposure.

B. Diagnostic procedures:

- Should provide information as detailed as possible about the functional status of the skin.
- Should be aimed at proving or rejecting an etiological role of suspected agents.
- Procedures carried out in all tested patients should be in a balanced relation to procedures made to meet individual needs.
- Procedures should be carried out according to the up-to-date recommendations of specialists' gremia.
- The results should be recorded in a way leaving no doubt to an uninvolved supervisor, or court.

Diagnosis of an occupational skin disease is very difficult because of the variety of activities of a farmer, who mostly undertake plant growing, animal breeding, refining animal and plant products (e.g. threshing flax or medical herbs), repairs to agricultural machinery and construction of buildings, as well as working as manager and trade representative of the farm. Moreover, the availability of specialised medical services in rural areas is unsatisfactory and hence the risk that a farm work-related disease will remain undiagnosed is relatively high [19]. The main sources of problems while diagnosing an occupational skin disease are listed in Table 1. At least some of the problems could be solved by a standardised diagnostic procedure for evaluating work-related skin diseases in farmers.

The aim of the present study was to elaborate a standard procedure, warranting: 1) unifying the diagnostic procedures in case of suspected occupational dermatosis in a farmer, 2) application of a method of collecting reliable information regarding exposure, and 3) reducing the variable factors in decision making.

MATERIAL AND METHODS

After an extensive literature search and analysis of author's own observations, a list of desirable features of a diagnostic standard for occupational dermatoses in farmers was compiled. These are shown in Table 2. The search through the literature provided also a list of agents in farm environment which are potentially hazardous to the skin. The elaborated standard procedure was used for one year both in the Outpatient Clinic for Rural Occupational Diseases of the Institute of Agricultural Medicine in Lublin (21 patients), and also in an epidemiological study on prevalence of work-related symptoms in 148 farmers living in the Lublin province (eastern Poland). Any need arising for additionally questioning a patient in order to clarify information obtained from questionnaire was recorded. Similarly,

Table 3. Special diagnostic procedures carried out in every farmer with suspicion of occupational disease.

- Allergological skin prick tests:

1. Dust and storage mites
2. Dust allergens (hay, straw, grain dust)
3. Moulds
4. Dander of animals
5. Flours and brans
6. Cockroaches
7. Latex

- Allergological intracutaneous tests:

1. Wood dusts
2. Plant fibres

- Allergological patch tests:

1. "European Standard"
2. "Plant Series"
3. "Pesticides"
4. "Rubber Series"

- Functional tests:

1. Alkaline resistance test and/or transepidermal water loss

- Serological tests:

1. Total serum IgE
2. Precipitins against microorganisms typical of working environment in agriculture (*Aspergillus fumigatus, Candida albicans, Saccharopolyspora rectivirgula, Thermoactinomyces vulgaris, Streptomyces albus, Arthrobacter globiformis, Pantoea agglomerans, Acinetobacter calcoaceticus*, chicken serum protein, duck serum protein, sheep serum protein)

problems which occurred during statistical analysis of epidemiological data collected by use of the questionnaire were likewise recorded. After one year, the questionnaire was re-evaluated in order to exclude suggestive or dubious questions and add questions which appeared to be lacking in the first version. The improved questionnaire was then used for the subsequent year. Simultaneously, a list of standard diagnostic procedures was continuously updated in order to make it fitting to the situations brought by real life.

RESULTS

The results of the literature search and its discussion have been published elsewhere [12, 13, 14, 15, 16]. According to the analysed data, a list of routinely performed tests in cases of suspected work-related skin diseases in farmers has been proposed and introduced into practice. This list is shown in Table 3. Also during the study, a list of additional diagnostic procedures necessary in individual cases to complete the diagnosis was compiled (Tab. 4), although the author is aware that this list will be continuously expanded by a variety of atypical cases. Since the first year of using the questionnaire, about 45 changes have been introduced. The revised version of the questionnaire is presented as Appendix.

DISCUSSION

Standard procedure is expected to assist in obtaining a better reproducibility of the evaluation, i.e. that the same patient evaluated by independent experts would receive a similar final result of evaluation. The procedure should include diagnostic techniques which are available at several institutions in a country. This would allow for re-assessment of the results by an independent institution in the case of disagreement in the final result.

Table 4. Examples of special diagnostic procedures performed in farmer with suspicion of occupational disease when patient's history or symptoms suggest to do this. Please note that these are only examples, and selection of any test depends on the individual need.

- Exposure tests:

1. In controlled conditions with suspected substances taken from patient's working environment
2. Observation of the patient while working in his/her farm

- Morphological tests:

1. Microscopy evaluation of a skin biopsy
2. Skin-surface microscopy (dermatoscopy)

- Microbiological tests (microscopy, culture, identification tests):

1. Mycological tests
2. Bacteriological tests

- Functional tests:

1. Evaluation of ultraviolet irradiation skin sensitivity (minimal erythematous dosis)

- Serological tests:

1. Serum specific IgE level
2. *Borrelia burgdorferi* antibodies

The standard procedure should, in the first instance, cope with the most common occupational skin disease, i.e. contact dermatitis. As contact dermatitis is the most common work-related skin disease in farmers, the proposed procedure is best suited to this particular disease. In the author's opinion, the questionnaire for recording a patient's history may be used for any skin disease of possible occupational etiology, although there are limitations in using it in cases of infections skin diseases (eg. mycoses, bacterial infections). In the case of diseases other than contact dermatitis more diagnostic procedures would be needed, for example those listed in Table 4.

The questionnaire partly fills the gap resulting from the lack of compulsory farm safety inspection by work safety authorities, and the lack of monitoring of exposure to hazardous agents. In most cases, the first visit of an occupational safety inspector to the farm takes place only when an occupational disease is diagnosed because the acceptance of the inspector is needed for granting a compensation [6, 11]. Therefore, the occupational physician is left to himself and the patient's testimonies while collecting data about the type of noxious agent, duration and intensity of occupational exposure.

This situation also leads to using in the initial phase of diagnosing a "panel" testing with allergens typical of farm working environment, independently of the patient's history. The diversity and variability of allergenic agents to which the farmer is exposed and his/her lack of

awareness about possible hazards, in most cases makes even the most detailed questioning insufficient for indicating possible causative factors for further testing.

If the patient's history as recorded does not exclude an occupational skin disease, the standard diagnostic procedures are carried out as a next step. According to the schedule, the patient is tested in 2–3 series of 5 days, from Monday to Friday. For these periods the farmer is hospitalised in the Clinic for Occupational Diseases in order to keep him/her away from working environment, which in the case of farmers is almost synonymous with the housing environment.

If for any reason the farmer declines admission to the hospital, there is a possibility to carry out the tests ambulatory; in this case, the patient spends from 30-90 minutes in the department as each day. The tests are carried out according to up-to-date recommendations [2, 4, 17, 18]. After performing all standard tests, the results are analysed, and additional diagnostic procedures are individually planned.

If, after performing all the tests, the physician remains uncertain whether a given disease is of occupational origin, the last step is to provide a diary to be kept by the farmer. In such a diary, the farmer records main working activities and skin symptoms. Each month the diary is discussed with the doctor, and, if a new causative agent is indicated, the appropriate tests are planned. Special difficulties are connected with the irritant (toxic) dermatitis in the workplace, where the disease is often caused by cumulated minor toxic agents and, as a rule, no test result indicating one causative agent could be obtained. The most prevalent occupational skin disease – irritant dermatitis – remains therefore a diagnosis of exclusion [3]. Also the term "occupational contact dermatitis" is differently understood by physicians, who base on medical knowledge [7], and by work safety and insurance authorities, who use the definition of occupational disease given in legal acts.

CONCLUSION

The presented standard procedure has been used routinely for two years at the Outpatient Clinic for Rural Occupational Diseases of the Institute of Agricultural Medicine in Lublin, and proved substantially helpful in obtaining a patient's history and performing diagnostic tests in order to verify occupational etiology of skin diseases in patients referred for assessment. The proposed questionnaire is a helpful tool for identifying agents hazardous to the farmer, as well as for collecting information regarding duration and intensity of the exposure.

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APPENDIX

QUESTIONNAIRE FOR THE DIAGNOSIS OF OCCUPATIONAL DERMATOSIS IN FARMERS

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Patient's name			
Date of birth		**No.**	
Date of examination		**Place of examination**	
Sex	□ female □ male	**Statistical code**	

Occupational history

1. Period of working in agriculture: since ..... until ..... [total ..... years]

2. Occupational activities while working as farmer (note: only those substances/materials the farmer has actually dealt with should be indicated, appearance of a particular substance on farm without a virtual contact is insufficient for its inclusion in the following list):

Activities related to producing and processing the following products, raw materials and accessory substances:		**Mean period of contact (months) during a year**			**Details**	**Explanations**
		≤ 1	**1–6**	**≥ 6**		
plant product						
2.01 □	wheat	□	□	□		
2.02 □	rye	□	□	□		
2.03 □	barley	□	□	□		
2.04 □	oats	□	□	□		
2.05 □	maize	□	□	□		
2.06 □	straw	□	□	□		
2.07 □	potatoes	□	□	□		
2.08 □	rape	□	□	□		
2.09 □	sunflower	□	□	□		
2.10 □	sugar-beet	□	□	□		
2.11 □	fresh (green) hay	□	□	□		
2.12 □	dry hay	□	□	□		
2.13 □	silages	□	□	□		
2.14 □	pulse crops*	□	□	□		bean, pea, etc.
2.15 □	flax	□	□	□		
2.16 □	hemp	□	□	□		
2.17 □	camomile	□	□	□		
2.18 □	thymus	□	□	□		
2.19 □	peppermint	□	□	□		
2.20 □	valerian	□	□	□		
2.21 □	common rue	□	□	□		
2.22 □	other herbs	□	□	□		
2.23 □	hop	□	□	□		
2.24 □	fruits*	□	□	□		apple, pear, plum, cherry etc.
2.25 □	berries*	□	□	□		strawberry, gooseberry, raspberry, other berries
2.26 □	mushrooms	□	□	□		only if cultivated
2.27 □	tomato	□	□	□		
2.28 □	cucumber	□	□	□		

Activities related to producing and processing the following products, raw materials and accessory substances:		Mean period of contact (months) during a year			Details	Explanations
		≤ 1	1–6	≥ 6		
plant products						
2.29 □	lettuce	□	□	□		
2.30 □	radish	□	□	□		
2.31 □	cauliflower	□	□	□		
2.32 □	cabbage	□	□	□		
2.33 □	celery	□	□	□		
2.34 □	parsnip	□	□	□		
2.35 □	other vegetables	□	□	□		
2.36 □	decorative flowers	□	□	□		
2.37 □	tobacco	□	□	□		
2.39 □	other plant products	□	□	□		
animals						
2.41 □	cows	□	□	□		
2.42 □	swine	□	□	□		
2.43 □	horses	□	□	□		
2.44 □	sheep	□	□	□		
2.45 □	goats	□	□	□		
2.46 □	ducks	□	□	□		
2.47 □	chickens	□	□	□		
2.48 □	geese	□	□	□		
2.49 □	turkeys	□	□	□		
2.50 □	rabbits	□	□	□		
2.51 □	coypu	□	□	□		
2.52 □	foxes	□	□	□		
2.53 □	pigeons*	□	□	□		bed for meat
2.54 □	bees*	□	□	□		in case of beekeeping
2.59 □	other farm animals	□	□	□		
other biological substances						
2.61 □	cow dung, stable manure	□	□	□		
2.62 □	compost	□	□	□		
chemicals						
2.71 □	herbicides*	□	□	□		in case of immediate contact with the skin or exposure to vapours, fumes, etc.
2.72 □	fungicides*	□	□	□		as above
2.73 □	insecticides*	□	□	□		as above
2.74 □	other or not clearly defined plant protection chemicals*	□	□	□		as above
2.75 □	preparations for regulating plant growth or maturation of fruits*	□	□	□		as above
2.76 □	fertilizers*	□	□	□		as above
2.77 □	diesel*	□	□	□		in case of immediate contact with the skin
2.78 □	detergents*	□	□	□		if used for agricultural production
2.79 □	disinfectants*	□	□	□		as above
2.89 □	other chemicals	□	□	□		
pharmaceuticals						
2.91 □	preparations for regulating animal growth or weight increase	□	□	□		
2.92 □	veterinary drugs	□	□	□		
2.93 □	veterinary vaccines	□	□	□		
2.99 □	other veterinary pharmaceuticals	□	□	□		

3. Please list the six products which contributed the most (production, trade) to the farm's income during the last 10 years:

1.	4.
2.	5.
3.	6.

4. Does the examined patient work outside agriculture? yes □ no □

Professional career apart from farming

Occupation/post	Years of work	Exposure to hazardous agents		
		chemical	physical	biological
		□	□	□
		□	□	□
		□	□	□
Total number of occupations:	**Sum:**	**Note:** this part pertains only to occupations not related to agriculture		

5. Suspicion of occupational skin disease related to non-agricultural occupational activities: yes □ no □

History of patient's skin diseases

6. Skin diseases in childhood (until 15 y.o.): yes □ no □

Year of life in which the disease started ..... Duration of the disease .....

Detailed description of the skin disease inn childhood:

7. Skin diseases beyond 15 y.o.
7.00 □ not present
7.01 □ present, but untreated
7.02 □ treated by patient
7.03 □ diagnosed and treated by a general practitioner
7.04 □ diagnosed and treated ambulatory by a dermatologist
7.05 □ diagnosed and treated in a dermatology ward/clinic

Year of life, in which the disease started..... Duration of the disease .....

Diagnosis/type of skin changes:

8. Skin changes during the last month.
8.00 □ not present
8.01 □ present, but untreated
8.02 □ treated by patient
8.03 □ diagnosed and treated by a general practitioner
8.04 □ diagnosed and treated ambulatory by a dermatologist
8.05 □ diagnosed and treated in a dermatology ward/clinic

9. Skin changes at the examination: present □ not present □
Note: healed scars are not considered skin changes

Skin status at the time of examination:

10. Localisation of skin changes at the time of examination:
10.01. □ skin changes not present
10.02. □ hands
10.03. □ feet
10.04. □ face
10.05. □ uncovered areas with exception of face (décolletage, neck, forearms, lower legs)
10.06. □ changes dispersed over the whole body
10.99. □ other localisation:

11. Estimation of surface of involved skin:
11.01. □ skin changes not present
11.02. □ < 10%
11.03. □ 10–25%
11.04. □ 26–50%
11.05. □ > 50%
Note: use the common rule for assessing surface of skin burns.

12. Preliminary diagnosis:

12.01. □ Eczema .....
12.02. □ Tinea .....
12.03. □ Psoriasis .....
12.04. □ Urticaria .....
12.99. □ Other: .....

13. Assessment by the examined patient of the relation between appearance (exacerbations) of skin changes and work:
13.01. □ Does not apply - skin changes not present (e.g. in epidemiological studies)
13.02. □ No relation to occupational activities
13.03. □ Skin changes appear (exacerbate) sometimes while working, but more frequently in other circumstances
13.04. □ Skin changes appear (exacerbate) mostly while working, but sometimes also in other circumstances
13.05. □ Skin changes appear (exacerbate) only during work

14. Activities provoking appearance (exacerbation) of skin changes

Activities related to producing and processing the following products, raw materials and accessory substances:		Detailed description of circumstances in which the symptoms appear (an additional sheet of paper may be used)	Duration of exposure	
			since which year of life	in years
plant products				
14.01 □	wheat			
14.02 □	rye			
14.03 □	barley			
14.04 □	oats			
14.05 □	maize			
14.06 □	straw			
14.07 □	potatoes			
14.08 □	rape			
14.09 □	sunflower			
14.10 □	sugar-beet			
14.11 □	fresh (green) hay			
14.12 □	dry hay			
14.13 □	silages			
14.14 □	pulse crops			
14.15 □	flax			
14.16 □	hemp			
14.17 □	camomile			
14.18 □	thymus			
14.19 □	peppermint			
14.20 □	valerian			
14.21 □	common rue			
14.22 □	other herbs			

Activities related to producing and processing the following products, raw materials and accessory substances:		Detailed description of circumstances in which the symptoms appear (an additional sheet of paper may be used)	Duration of exposure	
			since which year of life	in years
14.23 □	hop			
14.24 □	fruits			
14.25 □	berries			
14.26 □	mushrooms			
14.27 □	tomato			
14.28 □	cucumber			
14.29 □	lettuce			
14.30 □	radish			
14.31 □	cauliflower			
14.32 □	cabbage			
14.33 □	celery			
14.34 □	parsnip			
14.35 □	other vegetables			
14.36 □	decorative flowers			
14.37 □	tobacco			
14.39 □	other plant products			
animals				
14.41 □	cows			
14.42 □	swine			
14.43 □	horses			
14.44 □	sheep			
14.45 □	goats			
14.46 □	ducks			
14.47 □	chickens			
14.48 □	geese			
14.49 □	turkeys			
14.50 □	rabbits			
14.51 □	coypu			
14.52 □	foxes			
14.53 □	pigeons			
14.54 □	bees			
14.59 □	other farm animals			
other biological substances				
14.61 □	cow dung, stable manure			
14.62 □	compost			
chemicals				
14.71 □	herbicides			
14.72 □	fungicides			
14.73 □	insecticides			
14.74 □	other, or not clearly defined plant protection chemicals			
14.75 □	preparations for regulating plant growth or maturation of fruits			
14.76 □	fertilizers			
14.77 □	diesel			
14.78 □	detergents			
14.79 □	disinfectants			
14.89 □	other chemicals			
pharmaceuticals				
14.91 □	preparations for regulating animal growth or weight increase			
14.92 □	veterinary drugs			
14.93 □	veterinary vaccines			

Activities related to producing and processing the following products, raw materials and accessory substances:	Detailed description of circumstances in which the symptoms appear (an additional sheet of paper may be used)	Duration of exposure	
		since which year of life	in years
14.99 □ other veterinary pharmaceuticals			

15. Other factors capable of provoking skin changes:

Factor	Detailed description of circumstances in which the symptoms appear (an additional sheet of paper may be used)	Duration of exposure	
		since which year of life	in years
15.01 □ soil			
15.02 □ humidity			
15.03 □ solar irradiation			
15.04 □ low temperatures			
15.05 □ high temperatures			
15.06 □ wind			
15.07 □ microtraumas			
15.08 □ rubber boots			
15.09 □ rubber gloves			
15.10 □ latex gloves			
15.10 □ polyethylene gloves			
15.11 □ other protective means			

16. The described symptoms appeared:
16.01. □ sometimes (at most every 2nd time of exposure to listed factors)
16.02. □ virtually every time of exposure to listed factors)

17. Skin changes related to wok:
17.01. Appeared for the first time in the year ..... (year of life .....)

17.02. Since their first appearance	□ exacerbate	□ do not change	□ become milder
17.03. During work-free periods	□ alleviation	□ no difference	□ exacerbation
17.04. During periods of intensive work	□ alleviation	□ no difference	□ exacerbation

18. Other symptoms occurring simultaneously to the skin symptoms:
18.00. □ not present
18.01. □ lacrimation and/or itching eye
18.02. □ sneezing and/or nasal itch and/or nasal blockage and/or watery secretion
18.03. □ dyspnea and/or wheezing and/or cough
18.99. □ other .....

19. The examined patient:

19.00. □ is not interested in testing for occupational skin diseases
19.01. □ is interested in testing for occupational skin diseases

I confirm hereby the truthfulness of above information.

place ..... , date ..... , legible patient's signature .....

20. In the opinion of the examining dermatologist:

20.00. □ there are no indications for suspecting occupational dermatosis related to farm work
20.01. □ presence of occupational dermatosis related to farm work cannot be excluded at this stage
20.02. □ clinical appearance and course typical of occupational skin disease related to farm work

Remarks: ....