Uploaded to VFC Website

~ October 2012 ~

This Document has been provided to you courtesy of Veterans-For-Change!

Feel free to pass to any veteran who might be able to use this information!

For thousands more files like this and hundreds of links to useful information, and hundreds of "Frequently Asked Questions, please go to:

Veterans-For-Change

Veterans-For-Change is a 501(c)(3) Non-Profit Corporation
Tax ID #27-3820181

If Veteran's don't help Veteran's, who will?

We appreciate all donations to continue to provide information and services to Veterans and their families.

https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&hosted_button_id=WGT2M5UTB9A78

Note: VFC is not liable for source information in this document, it is merely provided as a courtesy to our members.

Item ID Number 03044 ☐ **Not Scanned**

Author

Corporate Author

Report/Article Title Correspondence and data relating to a presentation on field studies of rodents exposed to 2,4,5-T herbicide, 1975

Journal/Book Title

Year 0000

Month/Day

Color ☐

Number of Images 13

Description Notes Study was conducted by Charles E. Thalken, William E. Ward, and Alvin L. Young and the paper was to be presented by Thalken at the American Veterinary Medical Association Convention.

AMERICAN VETERINARY MEDICAL ASSOCIATION
930 NORTH MEACHAM ROAD · SCHAUMBURG, ILLINOIS 60172 · PHONE 312/885-8070

June 10, 1975

TO: 1975 AVMA Convention Program Participants

SUBJECTS: (1) Reimbursement for 1975 convention expenses
(2) Call for papers for publication in the J.A.V.M.A.

Enclosed is a reimbursement check for the amount you have claimed for expenses related to your participation on the 1975 AVMA convention program. On behalf of AVMA's officers, Executive Board, and staff, I extend appreciation for your willingness to share your knowledge with your colleagues on this occasion.

For those veterinarians unable to attend the convention, we hope to make available in forthcoming special issues of the J.A.V.M.A. reports of convention presentations. We urge you to submit your report for one of these special issues at your earliest convenience, preferably by convention time. Your cooperation will be appreciated.

Arthur Freeman, D.V.M.
AVMA Staff Coordinator, Scientific Program

AF:ark

7/14/75

Received from C. E. Thalken AVMA check number 555 in the amount of $150.48 issued to cover convention speaker expense.

Miss Frances Stapelfeldt
For the Association

Attachment 5

9 July 1975

AVMA
930 North Meacham Road
Schaumburg, IL 60172

Gentlemen:

Find enclosed two copies of the manuscript from the oral presentation of Scientific Paper Number 81, being presented at the 112th Annual Meeting of the AVMA.

Please accept this manuscript for publication in a future issue of the JAVMA.

CHARLES E. THALKEN, Major, USAF, VC
Associate Professor
Department of Chemistry and Physiology
U. S. A. F. Academy, CO 80840

Please send all correspondence to: Dr. Charles E. Thalken
Qtrs 4406C
USAF Academy, CO 80840

AMERICAN VETERINARY MEDICAL ASSOCIATION
930 NORTH MEACHAM ROAD · SCHAUMBURG, ILLINOIS 60172 · PHONE 312/885-8070

July 29, 1975

TO: Speakers on the AVMA Convention Program in Anaheim

SUBJECT: (1) Informative Abstracts for J.A.V.M.A.
(2) Convention papers

Dear Doctor:

Earlier this year each convention speaker was asked to supply an abstract of his program presentation. Most speakers sent abstracts and we published them in the convention program booklet.

Now, we are asking you to review the abstract (attached) you previously sent, to revise and update it if necessary, and to make sure it tells what was done and what was learned. Avoid use of expressions such as presented, discussed, reviewed, and studies. About 200 words should be adequate. Please send us your revised abstract not later than AUGUST 20. The updated abstracts will be published in a fall issue of the JAVMA.

Also, in accordance with action taken by the House of Delegates, we will not publish a single proceedings issue as we used to do. Instead we will publish convention papers in special sections or issues of the J.A.V.M.A. devoted to the subject area concerning each report. If you have not submitted your convention manuscript yet, and want it considered for publication in the J.A.V.M.A. (with the exception of those given at the Avian Medicine section), we urge you to do so at your earliest convenience.

Arthur Freeman, D.V.M.
Scientific Program Coordinator

AF:ark

DFCP/Research 19 August 1975

AVMA Abstract

Dr. Arthur Freeman, D.V.M.
Scientific Program Coordinator
American Veterinary Medical Association
930 North Meacham Road
Schaumburg, IL 60172

Per your letter of 29 July 1975, attached please find a revised abstract (Number 81) to be published in a fall issue of the JAVMA.

CHARLES E. THALKEN, Major, USAF, VC
Associate Professor of Physiology
Department of Chemistry and Physiology

1 Atch
Abstract (Number 81)

Absence of TCDD Toxicity to a Rodent Population Following Massive Field Applications of 2,4,5-T Herbicide

Charles E. Thalken DVM, MS; William E. Ward, PhD

Alvin L. Young, PhD

USAF Academy, Colorado

Field investigations were conducted on populations of beach mice, Peromyscus polionotus, and hispid cotton rats, Sigmodon hispidus from a unique 1-sq mile military test site that was sprayed with 160,948 pounds of active ingredient 2,4,5-trichlorophenoxyacetic acid herbicide (2,4,5-T). Significant levels (10-710 parts per trillion - ppt) of the contaminant 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) were found within the top six inches of test site soils although ten years had elapsed since the last aerial application of 2,4,5-T. Liver tissue from rodents inhabiting the test site contained 210-1,300 ppt TCDD. However, no gross or histological evidence of teratogenesis or toxicity was found in 122 adults and 87 fetuses. An analysis of variance of liver and spleen weights for the beach mouse indicated significant differences between control and TCDD-exposed animals. Analysis of plant seeds revealed no detectable levels of TCDD (minimum detection limit of 1 ppt TCDD). TCDD accumulation in liver tissue was thought to be associated with pelt contamination from burrowing and subsequent ingestion of soil particles via grooming.

(81) Absence of TCDD Toxicity to Rodent Populations Following Massive Field Applications of 2,4,5-T Herbicide

Charles E. Thalken, DVM, MS; William E. Ward, PhD; Alvin L. Young, PhD
USAF Academy, Colorado

Field studies were conducted on populations of beach mice *(Peromyscus polionotus)* and hispid cotton rats *(Sigmodon hispidus)* from a unique 1-sq mile military test site that was sprayed with 160,948 lb of active ingredient 2,4,5-trichlorophenoxyacetic acid herbicide (2,4,5-T). Significant levels (10 to 710 parts per trillion (ppt)) of the contaminant 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) were found in test site soils. Liver tissue from rodents inhabiting the test site contained 210 to 1,300 ppt TCDD. However, gross or histologic evidence of teratogenesis or toxicity were not found in 80 adults and 54 fetuses. Vegetation analysis revealed no uptake of TCDD. Route of entry into rodents was associated with grooming habits.

to the challenge [illegible]
were controls, as measured by body temperature, anorexia, depression, and severity of the diarrhea produced.

The authors concluded that the feeding of chlortetracycline to calves significantly complicated the clinical occurrence of *S typhimurium* infections, increased the magnitude of the salmonella reservoir in nature, and thus increased the risk of exposure to people and lower animals alike.

(78) Carcinogenesis Testing of Chlorinated Compounds Present in the Environment

Norbert P. Page, DVM, MS, and Cipriano Cueto, Jr., PhD
Bethesda, Maryland

The great strides in chemical technology have not been without associated risks to our health and environment. Scientists estimate that 75 to 90% of all cancers are related to environmental factors. Several classes of chemicals have shown carcinogenic activity, e.g., nitrosamines, polycyclic hydrocarbons, and aromatic amines.

Chlorinated chemicals are of current concern. Recent evidence in man confirms the carcinogenicity of vinyl [illegible] of animal studies

Trial Test 2-4.
Control

Organ Wts expressed as % of Body Wts

SFX	Body Wt	Liver/BW	Heart/BW	Lungs/BW	Spleen/BW	Kidney/BW
M	12.86	5.13	0.54	—	—	—
M	11.90	6.30	0.54	—	—	—
M	12.30	7.15	0.57	—	—	—
M	10.44	5.17	0.96	—	—	—
M	14.65	5.54	0.74	0.81	0.12	1.54
M	12.62	6.16	0.74	0.54	0.10	1.45
M	12.66	4.14	0.89	0.85	0.17	1.57
M	12.59	3.93	0.76	0.89	0.11	1.64
M	10.44	5.56	0.80	0.90	0.15	1.67
M	11.70	4.59	1.11	0.79	0.14	1.67
M	12.75	4.16	0.82	0.80	0.16	1.36
M	11.72	6.19	0.77	0.94	0.13	1.80
M	11.45	4.79	0.87	0.84	0.17	1.49
M	11.05	4.97	0.81	0.79	0.04	1.84
M	10.55	6.09	0.92	1.01	0.28	1.53
F	11.61	5.53	0.66	0.85	0.22	1.47
F	12.55	5.48	0.68	1.31	0.13	1.78
F	10.23	6.64	0.82	0.86	0.24	1.66
F	12.67	5.56	0.96	0.84	0.16	1.78
Control Male	11.98 ± 1.13	5.32 ± 0.93	0.79 ± 0.15	0.83 ± 0.12	0.14 ± 0.06	1.60 ± 0.14
Control Female	11.76 ± 1.13	5.80 ± 0.56	0.75 ± 0.14	0.96 ± 0.23	0.19 ± 0.05	1.67 ± 0.15

Table III-5

Treated -

NATIONAL 42-384

Sex	Body Wt	Liver/BW	Heart/BW	Lungs/BW	Spleen/BW	Kidney/BW
M	12.59	3.57	0.79	—	—	—
	11.50	—	0.26	—	—	—
	11.36	—	0.77	—	—	—
	13.72	6.20	0.66	—	—	—
	10.70	7.79	0.74	—	—	—
	12.81	1.91	0.72	—	—	—
	10.48	7.25	0.67	—	—	—
	12.16	4.69	0.74	—	—	—
	13.50	—	—	—	—	—
	12.43	9.25	0.80	—	—	—
	11.27	7.09	0.71	—	—	—
	12.45	7.47	0.64	—	—	—
	10.06	5.26	0.73	0.80	0.14	1.86
	13.63	5.11	0.71	0.82	0.08	1.44
	11.49	7.17	0.98	0.90	0.25	1.75
	12.25	5.68	0.79	1.01	0.13	1.41
	11.26	3.72	0.99	0.82	0.09	1.59
	10.05	4.34	1.48	1.23	0.12	2.03
	11.74	6.79	0.60	0.72	0.38	1.63
	11.09	5.73	0.76	0.73	0.08	1.57
	11.63	6.45	0.71	0.72	0.30	1.75
	10.61	6.08	0.96	1.42	0.16	1.64
	12.07	7.47	0.76	0.79	0.23	1.92
	11.30	5.17	0.75	0.79	0.22	1.51
	12.21	6.94	0.61	0.66	0.48	1.42
	11.46	4.75	0.73	0.86	0.12	1.65
F	14.20	8.10	0.56	—	—	—
	15.43	8.43	0.45	—	—	—
	14.59	8.84	0.55	—	—	—
	16.01	9.06	0.62	—	—	—
	10.00	5.60	0.80	—	—	—
	10.79	10.57	0.93	—	—	—
	13.93	10.41	0.57	—	—	—
	11.30	5.13	0.62	—	—	—
	15.57	5.95	0.71	0.58	0.11	1.39
	16.32	6.40	0.66	0.50	0.34	1.48
	12.25	6.02	0.93	0.99	0.09	1.61
	12.05	6.09	0.71	0.76	0.13	2.09
Treated Male	11.80 ± 1.06	6.28 ± 1.62	0.77 ± 0.21	0.88 ± 0.21	0.20 ± 0.12	1.69 ± 0.19
Treated Female	13.54 ± 2.18	7.55 ± 1.91	0.68 ± 0.15	0.71 ± 0.22	0.17 ± 0.12	1.64 ± 0.31

The Wilcoxon Rank Sum Test
Organ Wt. expressed as % of Body Wt. (Liver)

	CM-CF		CM-TM		CF-TF		TM-TF	
	5.13	7	5.13	13	5.53	3	3.57	1
	6.30	17	6.30	26	5.48	2	6.20	17
	7.15	19	7.15	31	6.64	10	8.79	29
	5.17	8	5.17	14	5.56	4	9.41	33
	5.54	11	5.54	17	4		7.25	27
	6.16	15	6.16	23			4.69	4
	4.14	2	4.14	4	8.10		9.25	32
	3.93	1	3.93	3	8.43		7.09	22
	5.56	12.5	5.56	18	8.84		7.47	25.5
	4.59	4	4.59	7	9.06		5.26	9
	4.16	3	4.16	5	5.60	5	5.11	6
	6.19	16	6.19	24	10.57		7.17	23
	4.79	5	4.79	10	10.41		5.68	11
	4.97	6	4.97	11	5.13	1	3.72	2
	6.09	14	6.09	22	5.95	6	4.34	3
	15		15		6.40	9	6.79	20
					6.02	7	5.73	12
	5.53	10	3.57	1	6.09	8	6.45	19
	5.48	9	6.20	25	12		6.08	15
	6.64	18	8.79	36			7.47	25.5
	5.56	12.5	9.41	38			5.19	8
	4		7.25	33			6.94	21
			4.69	8			4.75	5
			9.25	37			23	
			7.09	30				
			7.47	34.5			8.10	27
			5.26	16			8.43	28
			5.11	12			8.84	30
			7.17	32			9.06	31
			5.68	19			5.60	10
			3.72	2			10.57	35
			4.34	0			10.41	34
			6.79	28			5.13	7
			5.73	20			5.95	13
			6.45	27			6.40	18
			6.08	21			6.02	14
			7.47	34.5			6.09	16
			5.19	15			12	
			6.94	29				
			4.75	9				
			23					
	$T_1 =$	140.5	$T_1 =$	228	$T_1 =$	19	$T_1 =$	367
$\alpha = 0.05$	130-170		226-359		17-51		357-471	
		NS		NS		NS		NS

The Wilcoxon Rank Sum Test
Organ wt. expressed as % of Body Wt. (Heart)

	CM-CF		CM-TM		CF-TF		TM-TF		
	0.54	1	0.54	2	0.66	7.5	0.79	26	26.5
	0.59	[illegible]	0.59	4	0.68	9	0.26	1	1
	0.57	[illegible]	0.57	3	0.82	13	0.97	33	34
	0.96	17.5	0.96	34.5	0.96	16	0.66	11.5	11.5
	0.74	6.5	0.74	17	4		0.84	29	30
	0.74	6.5	0.74	17			0.72	19	19
	0.89	15	0.89	32	0.56	3	0.67	13	13
	0.76	8	0.76	21	0.45	1	0.74	22	22
	0.80	10	0.80	26.5	0.55	2	0.80	29.5	28.5
	1.11	19	1.11	39	0.62	5.5	0.71	16	16
	0.82	12.5	0.82	29	0.80	12	0.64	10	10
	0.77	9	0.77	23	0.93	14.5	0.73	20.5	20.5
	0.87	14	0.87	31	0.57	4	0.71	16	16
	0.81	11	0.81	28	0.62	5.5	0.98	34	35
	0.92	16	0.92	33	0.71	10.5	0.79	26	26.5
	15		15		0.66	7.5	0.99	35	36
					0.93	14.5	1.48	36	37
	0.66	4	0.79	24.5	0.71	10.5	0.60	6	6
	0.68	5	0.26	1	12		0.76	24.5	24.5
	0.82	12.5	0.97	36			0.71	16	16
	0.96	17.5	0.66	5			0.96	32	33
	4		0.84	30			0.76	24.5	24.5
			0.72	13			0.75	23	23
			0.67	9			0.61	7	7
			0.74	17			0.73	20.5	20.5
			0.80	26.5			25		
			0.71	11					
			0.64	7			0.56	4	4
			0.73	14.5			0.45	2	2
			0.71	11			0.55	3	3
			0.98	37			0.62	8.5	8.5
			0.79	24.5			0.80	28.5	28.5
			0.99	38			0.93		31.5
			1.48	40			0.57	5	5
			0.60	5			0.62	8.5	8.5
			0.76	21			0.71	16	16
			0.71	11			0.66	11.5	11.5
			0.96	34.5			0.93		31.5
			0.76	21			0.71	16	16
			0.75	19			15		
			0.61	8					
			0.73	14.5					
			25						
	T_1 =	151	T_1 =	340	T_1 =	45.5	T_1 =		537
α = 0.05	130-170		237-378		17-51		414-536		
		NS		NS		NS			S

The Wilcoxon Rank Sum Test
Organ Wt. expressed as % of Body Wt. (Lungs)

	CM-CF		CM-TM		CF-TF		TM-TF	
	0.81	5	0.81	12	0.85	5	0.80	10
	0.54	1	0.54	1	1.31	8	0.82	11.5
	0.85	8.5	0.85	16	0.86	6	0.90	14
	0.89	11	0.89	18	0.84	4	1.01	16
	0.90	12	0.90	19.5	4		0.82	11.5
	0.79	2.5	0.79	7.5			1.23	17
	0.80	4	0.80	10.5	0.58	2	0.72	4.5
	0.94	13	0.94	21	0.50	1	0.73	6
	0.84	6.5	0.84	15	0.99	7	0.72	4.5
	0.79	2.5	0.79	7.5	0.76	3	1.42	18
	1.01	14	1.01	22.5	4		0.79	8.5
	11		11				0.79	8.5
							0.66	3
	0.85	8.5	0.80	10.5			0.86	13
	1.31	15	0.82	13.5			14	
	0.86	10	0.90	19.5				
	0.84	6.5	1.01	22.5			0.58	2
	4		0.82	13.5			0.50	1
			1.23	24			0.99	15
			0.72	3.5			0.76	7
			0.73	5			4	
			0.72	3.5				
			1.42	25				
			0.79	7.5				
			0.79	7.5				
			0.66	2				
			0.86	17				
			14					
	$T_1 =$	75	$T_1 =$	150.5	$T_1 =$	23	$T_1 =$	146
$\alpha = 0.05$	72-104		106-180		10-26		114-152	
		NS		NS		NS		NS

The Wilcoxon Rank Sum Test
Organ wt. expressed as % of Body wt. (Spleen)

	CM-CF		CM-TM		CF-TF		TM-TF	
	0.12	4	0.12	8	0.22	6	0.14	10
	0.10	2	0.10	5	0.13	3.5	0.08	1.5
	0.17	11.5	0.17	17.5	0.24	7	0.25	14
	0.11	3	0.11	6	0.16	5	0.13	8.5
	0.15	8	0.15	14	4		0.09	3.5
	0.14	7	0.14	12.5			0.12	6.5
	0.16	9.5	0.16	15.5	0.11	2	0.38	17
	0.13	5.5	0.13	10.5	0.34	8	0.08	1.5
	0.17	11.5	0.17	17.5	0.09	1	0.30	15
	0.04	1	0.04	1	0.13	3.5	0.16	7
	0.28	15	0.28	22	4		0.23	13
	11		11				0.22	12
							0.48	18
	0.22	13	0.14	12.5			0.12	6.5
	0.13	5.5	0.08	2.5			14	
	0.24	14	0.25	21				
	0.16	9.5	0.13	10.5			0.11	5
	4		0.09	4			0.34	16
			0.12	8			0.09	3.5
			0.38	24			0.13	8.5
			0.08	2.5			4	
			0.30	23				
			0.16	15.5				
			0.23	20				
			0.22	19				
			0.48	25				
			0.12	8				
			14					
	T_1 =	78	T_1 =	121.5	T_1 =	21.5	T_1 =	138
α = 0.05	72-104		106-180		10-26		114-152	
		NS		NS		NS		NS

The Wilcoxon Rank Sum Test
Organ Wt. expressed as % of Body Wt (Kidneys)

	CM-CF		CM-TM		CF-TF		TM-TF	
	1.54	6	1.54	8	1.47	2	1.86	14
	1.45	2	1.45	4	1.78	6.5	1.44	3
	1.57	7	1.57	9.5	1.66	5	1.75	12.5
	1.64	8	1.64	13.5	1.78	6.5	1.91	15
	1.67	10.5	1.67	16.5	4		1.59	7
	1.67	10.5	1.67	16.5			2.03	17
	1.36	1	1.36	1	1.39	1	1.63	9
	1.80	14	1.80	20	1.48	3	1.57	6
	1.49	4	1.49	5	1.61	4	1.75	12.5
	1.84	15	1.84	21	2.09	8	1.64	10
	1.53	5	1.53	7	4		1.92	16
	11		11				1.51	5
							1.42	2
	1.47	3	1.86	22			1.65	11
	1.78	12.5	1.44	3			14	
	1.66	9	1.75	18.5				
	1.78	12.5	1.91	23			1.39	1
	4		1.59	11			1.48	4
			2.03	25			1.61	8
			1.63	12			2.09	18
			1.57	9.5			4	
			1.75	18.5				
			1.64	13.5				
			1.92	24				
			1.51	6				
			1.42	2				
			1.65	15				
			14					
	$T_1 =$	83	$T_1 =$	122	$T_1 =$	20	$T_1 =$	140
$\alpha = 0.05$	72-104		106-180		10-26		114-152	
		NS		NS		NS		NS