

**Experiment Number:** 20702 - 01  
**Test Type:** 90-DAY  
**Route:** DOSED FEED  
**Species/Strain:** RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
Usnea Lichen  
**CAS Number:** USNEALICHEN

**Date Report Requested:** 12/03/2020  
**Time Report Requested:** 12:51:12  
**First Dose M/F:** 02/14/09 / 02/14/09  
**Lab:** NCTR

**NTP Study Number:** C20702  
**Lock Date:** 07/01/2013  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

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 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>FISCHER 344 RATS-NCTR RATS MALE</b>	9	9	9	9	9	9	9	9	9
<b>Control 0 PPM</b>	5	5	5	5	5	5	5	5	5	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	1	1
	2	2	3	3	6	6	8	9	1	1
	1	3	3	5	1	3	9	1	7	9
<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Inflammation, Chronic Active	1		1	1				1		1	<b>5 1.0</b>
Hepatocyte, Degeneration		1									<b>1 1.0</b>
Pancreas	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Vacuolization Cytoplasmic							2				<b>1 2.0</b>
Salivary Glands	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**CARDIOVASCULAR SYSTEM**

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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
FISCHER 344 RATS-NCTR RATS MALE	5	5	5	5	5	5	5	5	5	5	
Control 0 PPM											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	2	2	3	3	6	6	8	9	1	1	
	1	3	3	5	1	3	9	1	7	9	
	<b>* TOTALS</b>										
Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Cardiomyopathy	1	2	1	2			1	1		1	<b>7 1.3</b>
<b>ENDOCRINE SYSTEM</b>											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Vacuolization Cytoplasmic		1	2	1	2						<b>4 1.5</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Ectopic Thymus							X				<b>1</b>
<b>GENERAL BODY SYSTEM</b>											
Tissue NOS	+										<b>1</b>
Mediastinum, Hemorrhage	4										<b>1 4.0</b>
<b>GENITAL SYSTEM</b>											
Epididymis	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Preputial Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>

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 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
FISCHER 344 RATS-NCTR RATS MALE	5	5	5	5	5	5	5	5	5	5	
Control 0 PPM											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	2	2	3	3	6	6	8	9	1	1	
	1	3	3	5	1	3	9	1	7	9	
	<b>* TOTALS</b>										
Inflammation, Suppurative		1							2		<b>2 1.5</b>
Inflammation, Chronic Active	3		2				2				<b>3 2.3</b>
Prostate	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Testes	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>HEMATOPOIETIC SYSTEM</b>											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Hyperplasia, Lymphoid	2		2								<b>2 2.0</b>
Spleen	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Thymus	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>INTEGUMENTARY SYSTEM</b>											
Mammary Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Skin	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>MUSCULOSKELETAL SYSTEM</b>											
Bone, Femur	+	+	+	+	+	+	+	+	+	+	<b>10</b>

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	9	9	9	9	9	9	9	9	9	9	
<b>FISCHER 344 RATS-NCTR RATS MALE</b>	5	5	5	5	5	5	5	5	5	5	
<b>Control 0 PPM</b>											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	2	2	3	3	6	6	8	9	1	1	
	1	3	3	5	1	3	9	1	7	9	
<b>* TOTALS</b>											

**NERVOUS SYSTEM**

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	10	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	10	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	10	
Gliosis										2		1 2.0
Mineralization										2		1 2.0

**RESPIRATORY SYSTEM**

Lung	+	+	+	+	+	+	+	+	+	+	10	
Hemorrhage										2		1 2.0
Nose	+	+	+	+	+	+	+	+	+	+	10	
Trachea	+	+	+	+	+	+	+	+	+	+	10	

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	10	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10	

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	10	
Hyaline Droplet										3		1 3.0
Hydronephrosis										2		1 2.0
Mineralization										1		1 1.0

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	9	9	9	9	9	9	9	9	9	9	
FISCHER 344 RATS-NCTR RATS MALE	5	5	5	5	5	5	5	5	5	5	
Control 0 PPM											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	1	1		
	2	2	3	3	6	6	8	9	1	1	
	1	3	3	5	1	3	9	1	7	9	
											* TOTALS
Nephropathy	1						1		1		3 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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DAY ON TEST		0	0	0	0	0	0	0	0	0	0
<b>FISCHER 344 RATS-NCTR RATS MALE</b>		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
<b>USNEA 30 PPM</b>		5	5	5	5	5	5	5	5	5	5
		0	0	0	0	0	0	0	0	0	0
ANIMAL ID		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	1	1	
		0	0	4	4	5	5	7	7	0	0
		1	3	5	7	3	5	3	5	1	3
<b>* TOTALS</b>											

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Deformity						X						<b>1</b>
Inflammation, Chronic Active				2								<b>1 2.0</b>
Necrosis			1									<b>1 1.0</b>

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

NONE

**INTEGUMENTARY SYSTEM**

NONE

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<b>FISCHER 344 RATS-NCTR RATS MALE</b> <b>USNEA 30 PPM</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	9	
		5	5	5	5	5	5	5	5	5		
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0		
		0	0	4	4	5	5	7	7	0	0	
		1	3	5	7	3	5	3	5	1	3	
											<b>* TOTALS</b>	

**MUSCULOSKELETAL SYSTEM**

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 60 PPM	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	
		0	0	0	0	0	0	0	0	0	0		
	9	9	9	9	9	9	9	9	9	9	9		
	5	5	5	5	5	5	5	5	5	5	5		
	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	1	1	0		
	0	1	2	3	6	7	8	8	0	0	0		
	9	1	9	1	9	1	1	3	5	7			<b>* TOTALS</b>

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+		<b>10</b>	
Inflammation, Chronic Active	1				1				1				<b>3 1.0</b>
Hepatocyte, Degeneration	2												<b>1 2.0</b>

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

NONE

**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

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<b>FISCHER 344 RATS-NCTR RATS          MALE          USNEA 60 PPM</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9
		5	5	5	5	5	5	5	5	5	5	5	5	5
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	1	1	0	
	0	1	2	3	6	7	8	8	8	0	0	0	0	
	9	1	9	1	9	1	1	3	5	7				
													<b>* TOTALS</b>	

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

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		0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>FISCHER 344 RATS-NCTR RATS MALE</b>		9	9	9	9	9	9	9	9	9	9	9	9	9	9
<b>USNEA 120 PPM</b>		5	5	5	5	5	5	5	5	5	5	5	5	5	5
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	3	3	5	5	7	7	9	9	9	9	9	9
		7	9	7	9	7	9	7	9	7	9	7	9	7	9
<b>* TOTALS</b>															

**ALIMENTARY SYSTEM**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Cyst	2														<b>1 2.0</b>
Inflammation, Chronic Active			1		1			1	1						<b>4 1.0</b>
Hepatocyte, Degeneration	1	2						1	1	1	1				<b>6 1.2</b>

**CARDIOVASCULAR SYSTEM**

NONE

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NONE

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**GENITAL SYSTEM**

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**HEMATOPOIETIC SYSTEM**

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FISCHER 344 RATS-NCTR RATS MALE USNEA 120 PPM	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9
		5	5	5	5	5	5	5	5	5	5	5	5	5
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	3	3	5	5	7	7	9	9	9	9	9
		7	9	7	9	7	9	7	9	7	9	7	9	9
<b>* TOTALS</b>														

**MUSCULOSKELETAL SYSTEM**

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 360 PPM	DAY ON TEST										ANIMAL ID
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	
	0	0	0	0	0	0	0	0	0	0	0 0 0 0 5
	<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active		1			1		1				3 1.0
Tension Lipidosis		2									1 2.0
Hepatocyte, Degeneration	2	2	1	1	2	2	1	3	3	1	10 1.8
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

**CARDIOVASCULAR SYSTEM**

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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
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Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 360 PPM	DAY ON TEST													
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5			
	ANIMAL ID													
	0 0 0 5	0 0 0 7	0 0 4 1	0 0 0 3	0 0 4 5	0 0 6 7	0 0 6 3	0 0 9 5	0 0 9 3	0 0 9 5	0 0 1 3	0 0 1 5		
												<b>* TOTALS</b>		
Blood Vessel	+ + + + + + + + + +											<b>10</b>		
Heart	+ + + + + + + + + +											<b>10</b>		
Cardiomyopathy	1 1 1 1 1 1 1 1 1											<b>7 1.0</b>		
<b>ENDOCRINE SYSTEM</b>														
Adrenal Cortex	+ + + + + + + + + +											<b>10</b>		
Vacuolization Cytoplasmic	2 1											<b>2 1.5</b>		
Adrenal Medulla	+ + + + + + + + + +											<b>10</b>		
Islets, Pancreatic	+ + + + + + + + + +											<b>10</b>		
Parathyroid Gland	+ + + + + + + + + +											<b>10</b>		
Pituitary Gland	+ + + + + + + + + +											<b>10</b>		
Thyroid Gland	+ + + + + + + + + +											<b>10</b>		
<b>GENERAL BODY SYSTEM</b>														
NONE														
<b>GENITAL SYSTEM</b>														
Epididymis	+ + + + + + + + + +											<b>10</b>		
Preputial Gland	+ + + + + + + + + +											<b>10</b>		
Infiltration Cellular, Lymphocyte	1											<b>1 1.0</b>		
Inflammation, Suppurative	1 2 2 3											<b>4 2.0</b>		

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
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Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 360 PPM	DAY ON TEST										ANIMAL ID			
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5				
	0 0 0 5	0 0 0 7	0 0 0 1	0 0 0 3	0 0 0 5	0 0 0 6	0 0 0 7	0 0 0 3	0 0 0 5	0 0 0 1	0 0 0 1			
													<b>* TOTALS</b>	
Duct, Ectasia	2				3								<b>2 2.5</b>	
Prostate	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
Testes	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
<b>HEMATOPOIETIC SYSTEM</b>														
Bone Marrow	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
Lymph Node, Mandibular Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	2		<b>10</b> <b>1 2.0</b>	
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	2	2	<b>10</b> <b>3 2.0</b>	
Spleen	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
Thymus	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
<b>INTEGUMENTARY SYSTEM</b>														
Mammary Gland	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
Skin	+	+	+	+	+	+	+	+	+	+			<b>10</b>	
<b>MUSCULOSKELETAL SYSTEM</b>														
Bone, Femur	+	+	+	+	+	+	+	+	+	+			<b>10</b>	

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
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 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>FISCHER 344 RATS-NCTR RATS MALE</b>	9	9	9	9	9	9	9	9	9
<b>USNEA 360 PPM</b>	5	5	5	5	5	5	5	5	5	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	1	1
	0	0	4	4	6	6	9	9	1	1
	5	7	1	3	5	7	3	5	3	5
<b>* TOTALS</b>										

**NERVOUS SYSTEM**

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**RESPIRATORY SYSTEM**

Lung	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Alveolar Epithelium, Hyperplasia							1				<b>1 1.0</b>
Nose	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Trachea	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Harderian Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Lymphocyte							1				<b>1 1.0</b>

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Casts Protein				1				1			<b>2 1.0</b>
Nephropathy		1			1			1		1	<b>4 1.0</b>

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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
<b>FISCHER 344 RATS-NCTR RATS MALE</b>	5	5	5	5	5	5	5	5	5	5	
<b>USNEA 360 PPM</b>											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	0	0	4	4	6	6	9	9	1	1	
	5	7	1	3	5	7	3	5	3	5	<b>* TOTALS</b>
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	<b>10</b>

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 + .. Tissue examined microscopically  
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 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	3	4	3	3	3	4	3	3	3	3	
	5	1	8	8	9	0	2	9	6	5	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	1	1	2	2	4	5	8	8	0	1	
	3	5	5	7	9	1	5	7	9	1	
<b>* TOTALS</b>											

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	A	+	+	+	9
Intestine Small, Jejunum	+	+	+	+	+	+	A	+	+	+	9
Liver	+	+	+	+	+	+	+	+	+	+	10
Hepatocyte, Degeneration	3	3	3	4	4	4	4	4	4	4	10 3.7
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Lymphocyte									1		1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

**CARDIOVASCULAR SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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1-4 .. Lesion qualified as:  
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 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 720 PPM	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
	3	4	3	3	3	4	3	3	3	3	
	5	1	8	8	9	0	2	9	6	5	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	1	1	2	2	4	5	8	8	0	1	
	3	5	5	7	9	1	5	7	9	1	
											<b>* TOTALS</b>
Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Myocardium, Vacuolization Cytoplasmic						2					<b>1 2.0</b>
<b>ENDOCRINE SYSTEM</b>											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Vacuolization Cytoplasmic	4	4	4	4	4	4	4	4	4	4	<b>10 4.0</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Ectopic Thymus									X		<b>1</b>
<b>GENERAL BODY SYSTEM</b>											
NONE											
<b>GENITAL SYSTEM</b>											
Epididymis	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Exfoliated Germ Cell	3	4	3	3	3	2	4	3	3	3	<b>10 3.1</b>
Hypospermia	4	4	4	4	4	4	4	4	4	4	<b>10 4.0</b>

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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID				
	0	0	0	0	0	0	0	0	0	0					
	3	4	3	3	3	4	3	3	3	3					
	5	1	8	8	9	0	2	9	6	5					
	0	0	0	0	0	0	0	0	0	0					
	0	0	0	0	0	0	0	0	0	0					
	0	0	0	0	0	0	0	0	1	1					
	1	1	2	2	4	5	8	8	0	1					
	3	5	5	7	9	1	5	7	9	1					
															<b>* TOTALS</b>
Preputial Gland	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Inflammation, Suppurative	4	3		3	2	3	3		4	2					<b>8 3.0</b>
Prostate	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Atrophy	4	4	4	4	4	4	4	4	4	4					<b>10 4.0</b>
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Atrophy	4	4	4	4	4	4	4	4	4	4					<b>10 4.0</b>
Testes	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Seminiferous Tubule, Degeneration	4	4	4	4	4	4	4	4	4	4					<b>10 4.0</b>
<b>HEMATOPOIETIC SYSTEM</b>															
Bone Marrow	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Congestion							4								<b>1 4.0</b>
Hypocellularity	4	4	4	3	3	4	4	3	3	4					<b>10 3.6</b>
Lymph Node					+										<b>1</b>
Lumbar, Hyperplasia, Lymphoid					2										<b>1 2.0</b>
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Hyperplasia, Lymphoid							1			2					<b>2 1.5</b>
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Spleen	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Thymus	+	+	+	+	+	+	+	+	+	+					<b>10</b>
Atrophy	4	4		4	4	4	4	2	4	4					<b>9 3.8</b>

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1-4 .. Lesion qualified as:  
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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID	
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	3	3	3	4	3	3	3	3	0	0
	5	1	8	8	9	0	2	9	6	5	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	1	0	0
	1	1	2	2	4	5	8	8	0	1	0	0
	3	5	5	7	9	1	5	7	9	1	0	0
											<b>* TOTALS</b>	

Cyst 2 1 2.0

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	10	
Atrophy	3	2	3	2	3	2		2	2	2		9 2.3
Skin	+	+	+	+	+	+	+	+	+	+	10	

**MUSCULOSKELETAL SYSTEM**

Bone, Femur	+	+	+	+	+	+	+	+	+	+	10	
-------------	---	---	---	---	---	---	---	---	---	---	----	--

**NERVOUS SYSTEM**

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	10	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	10	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	10	

**RESPIRATORY SYSTEM**

Lung	+	+	+	+	+	+	+	+	+	+	10	
Congestion							3					1 3.0
Infiltration Cellular, Histiocyte			1									1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10	
Malformation							X					1
Trachea	+	+	+	+	+	+	+	+	+	+	10	

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>FISCHER 344 RATS-NCTR RATS MALE</b>	3	4	3	3	3	4	3	3	3
<b>USNEA 720 PPM</b>	5	1	8	8	9	0	2	9	6	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	1
	1	1	2	2	4	5	8	8	0	1
	3	5	5	7	9	1	5	7	9	1
<b>* TOTALS</b>										

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Harderian Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	<b>10</b>		
Hydronephrosis				2			2					<b>2</b>	<b>2.0</b>
Nephropathy		1	1			1		1		1		<b>5</b>	<b>1.0</b>
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	<b>10</b>		
Lumen, Dilatation							4					<b>1</b>	<b>4.0</b>

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 M .. Missing tissue  
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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>FISCHER 344 RATS-NCTR RATS FEMALE</b>	9	9	9	9	9	9	9	9	9
<b>Control 0 PPM</b>	5	5	5	5	5	5	5	5	5	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	1	1
	2	2	3	3	6	6	9	9	1	2
	2	4	4	6	2	4	0	2	8	0
<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Intestine Small, Ileum Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	<b>10</b>	<b>1 2.0</b>
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Pancreas	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	<b>10</b>	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	<b>10</b>	

**CARDIOVASCULAR SYSTEM**

Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
--------------	---	---	---	---	---	---	---	---	---	---	-----------

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
FISCHER 344 RATS-NCTR RATS FEMALE	5	5	5	5	5	5	5	5	5	5
Control 0 PPM										
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	1
	2	2	3	3	6	6	9	9	1	2
	2	4	4	6	2	4	0	2	8	0

**\* TOTALS**

Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Cardiomyopathy	1		1	1							<b>3 1.0</b>

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Ectopic Thymus	X										<b>1</b>

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Lymphocyte		1									<b>1 1.0</b>
Inflammation, Suppurative			3	1		2	2				<b>4 2.0</b>
Inflammation, Chronic Active	3								2		<b>2 2.5</b>
Duct, Ectasia			3								<b>1 3.0</b>

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 M .. Missing tissue  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE Control 0 PPM	DAY ON TEST										ANIMAL ID			
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5				
	0 0 0 2 2	0 0 0 2 4	0 0 0 3 4	0 0 0 3 6	0 0 0 6 2	0 0 0 6 4	0 0 0 9 0	0 0 0 9 2	0 0 0 9 1 8	0 0 0 1 1 2				
														<b>* TOTALS</b>
Ovary	+ + + + + + + + + +													<b>10</b>
Uterus	+ + + + + + + + + +													<b>10</b>
Lumen, Dilatation											3			<b>2 3.0</b>
<b>HEMATOPOIETIC SYSTEM</b>														
Bone Marrow	+ + + + + + + + + +													<b>10</b>
Lymph Node, Mandibular Hyperplasia, Lymphoid	+ + + + + + + + + +											2 2		<b>2 2.0</b>
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+ + + + + + + + + +										2	2		<b>4 2.0</b>
Spleen	+ + + + + + + + + +													<b>10</b>
Thymus	+ + + + + + + + + +													<b>10</b>
<b>INTEGUMENTARY SYSTEM</b>														
Mammary Gland	+ + + + + + + + + +													<b>10</b>
Skin	+ + + + + + + + + +													<b>10</b>
<b>MUSCULOSKELETAL SYSTEM</b>														
Bone, Femur	+ + + + + + + + + +													<b>10</b>
<b>NERVOUS SYSTEM</b>														

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 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
FISCHER 344 RATS-NCTR RATS FEMALE	5	5	5	5	5	5	5	5	5	5	
Control 0 PPM											* TOTALS
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	2	2	3	3	6	6	9	9	1	2	
	2	4	4	6	2	4	0	2	8	0	
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	10
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	10
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	10
<b>RESPIRATORY SYSTEM</b>											
Lung	+	+	+	+	+	+	+	+	+	+	10
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10
<b>SPECIAL SENSES SYSTEM</b>											
Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Lymphocyte								1	1		2 1.0
<b>URINARY SYSTEM</b>											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Mineralization	4	4	4	4	4	4	4	4	4	4	10 4.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

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1-4 .. Lesion qualified as:  
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 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	<b>FISCHER 344 RATS-NCTR RATS FEMALE</b>	9	9	9	9	9	9	9	9	9
<b>USNEA 360 PPM</b>	5	5	5	5	5	5	5	5	5	5
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	1	1
	0	0	4	4	6	6	9	9	1	1
	6	8	2	4	6	8	4	6	4	6
<b>* TOTALS</b>										

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Intestine Small, Ileum Hyperplasia, Lymphoid	+	+	+	+	+	+	+	2	+	+	<b>10</b> <b>1 2.0</b>
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Liver	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pancreas Acinus, Degeneration	+	+	+	+	+	1	+	+	+	+	<b>10</b> <b>1 1.0</b>
Salivary Glands	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	<b>10</b>

**CARDIOVASCULAR SYSTEM**

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 + .. Tissue examined microscopically  
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 M .. Missing tissue  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 360 PPM	DAY ON TEST										ANIMAL ID		
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5			
	0 0 0 6	0 0 0 8	0 0 4 2	0 0 4 4	0 0 0 6	0 0 0 6	0 0 6 8	0 0 9 4	0 0 9 6	0 0 9 4	0 0 1 1	0 0 1 6	
<b>* TOTALS</b>													

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10	
Heart Cardiomyopathy	+	+	+	+	+	+	+	+	+	+	10	1 1.0

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10	
Pituitary Gland Pars Distalis, Cyst	+	+	+	+	+	+	+	+	+	+	10	2 2.0
Thyroid Gland Cyst, Squamous Ectopic Thymus	+	+	+	+	+	+	+	+	+	+	10	1 1.0 2

**GENERAL BODY SYSTEM**

NONE												
------	--	--	--	--	--	--	--	--	--	--	--	--

**GENITAL SYSTEM**

Clitoral Gland Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	10	1 2.0
---	---	---	---	---	---	---	---	---	---	---	----	-------

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 360 PPM	DAY ON TEST										ANIMAL ID			
	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5				
	0	0	0	0	0	0	0	0	0	0	0 0 0 0 6			<b>* TOTALS</b>
Ovary	+	+	+	+	+	+	+	+	+	+			10	
Uterus	+	+	+	+	+	+	+	+	+	+			10	
Lumen, Dilatation		3				3		3					3 3.0	
<b>HEMATOPOIETIC SYSTEM</b>														
Bone Marrow	+	+	+	+	+	+	+	+	+	+			10	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+			10	
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+			10	
		1	2			2	2						4 1.8	
Spleen	+	+	+	+	+	+	+	+	+	+			10	
Thymus	+	+	+	+	+	+	+	+	+	+			10	
<b>INTEGUMENTARY SYSTEM</b>														
Mammary Gland	+	+	+	+	+	+	+	+	+	+			10	
Skin	+	+	+	+	+	+	+	+	+	+			10	
<b>MUSCULOSKELETAL SYSTEM</b>														
Bone, Femur	+	+	+	+	+	+	+	+	+	+			10	
<b>NERVOUS SYSTEM</b>														

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
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 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

		0	0	0	0	0	0	0	0	0	0	
DAY ON TEST		0	0	0	0	0	0	0	0	0	0	
<b>FISCHER 344 RATS-NCTR RATS FEMALE</b>		9	9	9	9	9	9	9	9	9	9	
<b>USNEA 360 PPM</b>		5	5	5	5	5	5	5	5	5	5	
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	1	1	1	
		6	8	4	4	6	6	9	9	1	1	
		6	8	2	4	6	8	4	6	4	6	
<b>* TOTALS</b>												
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	10
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	10
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	10
<b>RESPIRATORY SYSTEM</b>												
Lung		+	+	+	+	+	+	+	+	+	+	10
Nose		+	+	+	+	+	+	+	+	+	+	10
Trachea		+	+	+	+	+	+	+	+	+	+	10
<b>SPECIAL SENSES SYSTEM</b>												
Eye		+	+	+	+	+	+	+	+	+	+	10
Harderian Gland		+	+	+	+	+	+	+	+	+	+	10
<b>URINARY SYSTEM</b>												
Kidney		+	+	+	+	+	+	+	+	+	+	10
Casts Protein					1			2	2	1	2	5 1.6
Mineralization		4	4	4	4	4	4	3	4	4	4	10 3.9
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	10

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID	
	0	0	0	0	0	0	0	0	0	0		
	3	3	2	9	3	2	3	3	3	3		
	5	5	8	5	5	8	5	3	2	5		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	1	1	1		
	1	1	2	2	5	5	8	8	1	1		
	4	6	6	8	0	2	6	8	0	2		
											<b>* TOTALS</b>	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+		<b>10</b>
Intestine Large, Cecum	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Intestine Large, Colon	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Intestine Large, Rectum	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Intestine Small, Duodenum	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Intestine Small, Ileum	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Intestine Small, Jejunum	+	A	+	+	+	+	+	+	+	+		<b>9</b>
Liver	+	+	+	+	+	+	+	+	+	+		<b>10</b>
Hepatocyte, Degeneration	3	4	3	1	3	3	4	4	4	3		<b>10 3.2</b>
Pancreas	+	+	+	+	+	+	+	+	+	+		<b>10</b>
Vacuolization Cytoplasmic							2					<b>1 2.0</b>
Salivary Glands	+	+	+	+	+	+	+	+	+	+		<b>10</b>
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+		<b>10</b>
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+		<b>10</b>

**CARDIOVASCULAR SYSTEM**

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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020  
 Time Report Requested: 12:51:12  
 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID	
	0	0	0	0	0	0	0	0	0	0		
	3	3	2	9	3	2	3	3	3	3		
	5	5	8	5	5	8	5	3	2	5		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	1	1	1		
	1	1	2	2	5	5	8	8	1	1		
	4	6	6	8	0	2	6	8	0	2		
											<b>* TOTALS</b>	

Blood Vessel	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Heart	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Cardiomyopathy				1							<b>1 1.0</b>

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	A	+	+	+	+	+	+	+	+	<b>9</b>
Vacuolization Cytoplasmic	4		4		4	3	3	4	3	4	<b>8 3.6</b>
Adrenal Medulla	M	A	+	+	+	+	+	+	+	+	<b>8</b>
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Pituitary Gland	+	A	+	+	+	+	+	+	+	+	<b>9</b>
Thyroid Gland	+	A	+	+	+	+	+	+	+	+	<b>9</b>
Ectopic Thymus						X					<b>1</b>

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Lymphocyte	2								1		<b>2 1.5</b>
Inflammation, Suppurative				4	2		3			2	<b>4 2.8</b>

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 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 720 PPM	DAY ON TEST										ANIMAL ID	
	0	0	0	0	0	0	0	0	0	0		
	3	3	2	9	3	2	3	3	3	3		
	5	5	8	5	5	8	5	3	2	5		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	1	1		
	1	1	2	2	5	5	8	8	1	1		
	4	6	6	8	0	2	6	8	0	2		
											<b>* TOTALS</b>	

Duct, Ectasia	3											1 3.0
Ovary	+	+	+	+	+	+	+	+	+	+		10
Uterus	+	A	+	+	+	+	+	+	+	+		9
Lumen, Dilatation	2											1 2.0

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	A	+	+	+	+	+	+	+	+		9
Hypocellularity	4		4		4	4	4	4	3	4		8 3.9
Lymph Node											1	
Lumbar, Hyperplasia, Lymphoid	2											1 2.0
Lymph Node, Mandibular	+	A	+	+	+	+	+	+	+	+		9
Lymph Node, Mesenteric	+	A	+	+	+	+	+	+	+	+		9
Spleen	+	+	+	+	+	+	+	+	+	+		10
Thymus	+	+	+	+	+	+	+	+	+	+		10
Atrophy	4	4	4		4	3	4	4	4			8 3.9

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	A	+	+	+	+	+	+	+	+		9
Skin	+	+	+	+	+	+	+	+	+	+		10

**MUSCULOSKELETAL SYSTEM**

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Experiment Number: 20702 - 01  
 Test Type: 90-DAY  
 Route: DOSED FEED  
 Species/Strain: RATS/F 344/NCTR

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Usnea Lichen  
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Date Report Requested: 12/03/2020  
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 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS FEMALE USNEA 720 PPM	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	3	3	2	9	3	2	3	3	3	3	
	5	5	8	5	5	8	5	3	2	5	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	1	1	
	1	1	2	2	5	5	8	8	1	1	
	4	6	6	8	0	2	6	8	0	2	
											<b>* TOTALS</b>
Bone, Femur	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>NERVOUS SYSTEM</b>											
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>RESPIRATORY SYSTEM</b>											
Lung	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Nose	+	A	+	+	+	+	+	+	+	+	<b>9</b>
Trachea	+	+	+	+	+	+	+	+	+	+	<b>10</b>
<b>SPECIAL SENSES SYSTEM</b>											
Eye	+	A	+	+	+	+	+	+	+	+	<b>9</b>
Harderian Gland	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infiltration Cellular, Lymphocyte									1		<b>1 1.0</b>
<b>URINARY SYSTEM</b>											
Kidney	+	+	+	+	+	+	+	+	+	+	<b>10</b>
Infarct							1				<b>1 1.0</b>
Mineralization	4	4	3	1	4		3	3	3	3	<b>9 3.1</b>

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 First Dose M/F: 02/14/09 / 02/14/09  
 Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	<b>FISCHER 344 RATS-NCTR RATS FEMALE</b>	3	3	2	9	3	2	3	3	3	
<b>USNEA 720 PPM</b>	5	5	8	5	5	8	5	3	2	5	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	1	1		
	1	1	2	2	5	5	8	8	1	1	
	4	6	6	8	0	2	6	8	0	2	
	<b>* TOTALS</b>										
Urinary Bladder	+	A	+	+	+	+	+	+	+	+	<b>9</b>

\*\*\* END OF REPORT \*\*\*

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