165

PEST CONTROL OPERATORS' SCHOOL

N. C. STATE COLLEGE

JANUARY 15-16-17, 1957





Conducted By

SCHOOL OF AGRICULTURE

Co-sponsored By

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ASSOCIATION

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DIVISION OF COLLEGE EXTENSION
N. C. STATE COLLEGE

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GROUP ASSIGNMENTS FOR WEDNESDAY P. M.

ON WEDNESDAY AFTERNOON THE PCO'S WILL BE DIVIDED INTO SIX GROUPS. THE NUMBER ON YOUR MANUAL WILL TELL YOU TO WHICH GROUP YOU ARE ASSIGNED. PLEASE GO DIRECTLY TO YOUR ASSIGNED ROOM. DURING THE COURSE OF THE AFTERNOON YOU WILL HAVE THE OPPORTUNITY OF ATTENDING ALL SIX SESSIONS AS DESCRIBED IN YOUR PROGRAM.

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| TIME | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 | GROUP 5 | GROUP 6 |
| 2:00-2:30 2:30-3:00 3:00-3:30 3:30-4:00 4:00-4:30 4:30-5:00 | CAMPUS R 245 THEATER R 252 R 256 R 254 | R 245 THEATER R 252 R 256 R 254 CAMPUS | THEATER R 252 R 256 R 254 CAMPUS R 245 | R 252 R 256 R 254 Campus R 245 Theater | R 256 R 254 CAMPUS R 245 THEATER R 252 | R 254 CAMPUS R 245 THEATER R 252 R 256 |
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MAJOR PROBLEMS OF THE PEST CONTROL OPERATOR IN VIRGINIA IN 1956 BY

J. O. ROWELL, EXTENSION ENTOMOLOGIST V. P. I., BLACKSBURG, VIRGINIA

INTRODUCTION: THE PROBLEMS OF THE PEST CONTROL OPERATOR MAY BE DIVIDED INTO THREE GROUPS: THOSE WITH PESTS, THOSE WITH PESTICIDES, AND THOSE WITH PEOPLE.

PROBLEMS WITH PESTS

- 1. NEW PESTS
- 2. OLD PESTS
- 3. RESISTANCE

PROBLEMS WITH PESTICIDES

- 1. FORMULATIONS
- 2. APPLICATION AND EQUIPMENT
- 3. SAFETY AND RESEARCH

PROBLEMS WITH PEOPLE

- 1. ITINERANT OPERATORS
- 2. PERSONNEL TRAINING
- 3. PAYMENT DELIQUENCY

LEGISLATION

MIGHT BE APPLICABLE TO ALL THREE GROUPS OF PROBLEMS.

SUMMARY

MOST COMMON PROBLEMS FOR PCO'S IN 1956

BY

GEORGE D. JONES N. C. STATE COLLEGE

THE 11 MOST DESTRUCTIVE INSECTS ON MAN, ANIMALS AND IN THE HOUSEHOLD:

| 1. | Housefly | 6. | STABLE FLY |
|----|---------------------|-----|------------------------------|
| 2. | SALT MARSH MOSQUITO | 7. | HORN FLY |
| 3. | GERMAN COCKROACH | 8. | DOG FLEA |
| 4. | NORTHERN FOWL MITE | 9. | WEBBING CLOTHES MOTH |
| 5. | BROWN-BANDED ROACH | 10. | EASTERN SUBTERRANIAN TERMITE |
| | | 11. | SOUTHERN LYCTUS BEETLE |

THE 12 MOST COMMON INSECT PROBLEMS REQUIRING ATTENTION:

1. Scale insects
7. Spider mites (general)
2. Termites and ants
8. Pantry pests, especially pea and bean weevils
3. Bees
9. Leaf eating insects
4. Wasps
10. White grubs
5. Shot-hole borers - wood structure 11. Clothes moths

12. APHIDS

THE 11 MOST DESTRUCTIVE INSECTS ON CROPS AND FOREST:

6. IPS (BARK BEETLES)

| 1 . ME | XICAN BEAN BEETLE | 6. | JAPANESE BEETLE |
|--------|-----------------------|-----|---------------------|
| 2. Co | RN EARWORM | 7. | TOBACCO BUDWORM |
| 3. Sp | OTTED CUCUMBER BEETLE | 8. | CIGARETTE BEETLE |
| 4. RI | CE WEEVIL | 9. | TOBACCO HORNWORM |
| 5. To | BACCO WIREWORM | 10. | BOLL WEEVIL |
| | | 11. | TOBACCO FLEA BEETLE |

THE HABITS AND COSTS OF TERMITES BY A. L. PICKENS

INTRODUCTION

- 1. WHAT ARE TERMITES?
 - 1. CASTES -
 - A. KINGS AND QUEENS
 - B. SOLDIERS
 - C. WORKERS
 - 2. INTER-CASTES
 - A. VICE-REPRODUCTIVES
 OR
 SECONDARIES & TERTIARIES
 - B. GUERILLAS OR WORKER-SOLDIERS
 - C. Tyros or REPRODUCTIVE-SOLDIERS
- 11. THE LOCAL PROBLEM

- 1. CONDITIONS FAVORING TERMITES
- 2. REMEDYING CONDITION
- 3. COOPERATING WITH THE TERMITE

CHEMICAL TREATMENT OF SOIL FOR TERMITE CONTROL

RESEARCH AND ITS PRACTICAL APPLICATION
BY
R. J. KOWAL
SOUTHEASTERN FOREST EXPERIMENT STATION
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE

I. INTRODUCTORY REMARKS

II. REVIEW OF RESEARCH ON CHEMICAL TREATMENTS

A. HISTORY EARLY TESTS - 1886 - 1939

STANDARDIZED TEST + 1939

USDA - BELTSVILLE, MARYLAND; SAUCIER, MISSISSIPPI; PANAMA
CANAL ZONE

CHEMICAL INDUSTRY - SAUCIER, MISSISSIPPI; JACKSONVILLE, FLA.

BUILDING TESTS - 1937 - 1954

B. RESULTS OF TESTS

EARLY TESTS - CHLORINATED PHENOLS, CHLORINATED BENZENES,

CREOSOTE OILS, PETROLEUM OILS, INORGANIC

CHEMICALS

WATER SOLUBLE AND INSOLUBLE CHEMICALS

STANDARDIZED TESTS - CHEMICALS MENTIONED ABOVE; NEW CHLORINATED HYDROCARBONS AND OTHER SYNTHETIC ORGANICS

III. PRACTICAL APPLICATION OF CHEMICALS

A. CONVENTIONAL CONSTRUCTION

CHEMICALS - OILS, WATER EMULSIONS, WATER SOLUTIONS, WETTABLE POWDERS, DRY POWDERS, FUMIGANTS

METHOD OF APPLICATION - TRENCHING, RODDING, ETC.

DOSAGES AND CONCENTRATIONS

SOIL - EFFECT OF TYPES, TEXTURE, STRUCTURE, ACIDITY, MOISTURE

B. SLAB-ON-GROUND CONSTRUCTION

CHEMICALS - OILS, WATER EMULSIONS, WATER SOLUTIONS, WETTABLE POWDERS, DRY POWDERS, FUMIGANTS

METHOD OF APPLICATION - TRENCHING, RODDING, ETC.

DOSAGES AND CONCENTRATIONS

Soil - Effect of types, texture, STRUCTURE, ACIDITY, MOISTURE

IV. SUBJECTS FOR DISCUSSION

- 1. WATER EMULSIONS VS. OIL SOLUTIONS
- 2. EFFECT OF CHEMICALS ON WATERPROOF MEMBRANES
- 3. CREEPING OF OILBORNE CHEMICALS THROUGH CONCRETE AND WOOD
- 4. EFFECT OF MEMBRANES ON TERMITE POPULATIONS
- 5. MINIMUM CONCENTRATIONS AND DOSAGES OF CHEMICALS
- 6. NATURE OF EFFECT OF CHEMICALS ON TERMITES

- 7. PERMANENCE OF TREATMENT LEACHING OR BREAKDOWN OF CHEMICALS
- 8. METHODS OF APPLICATIONS TRENCH DEPTH, RODDING, ETC.
- 9. Soils factors Relationship to method of treatment, permanence of treatment
- 10. Effect of CHEMICALS ON PLANTS INFLUENCE OF SOLVENTS, CARRIERS, ETC.

CONTROL OF SUBTERRANEAN TERMITES

A. H. BENDER
BENDER TERMITE CONTROL CO.
WASHINGTON, D. C.

PROBLEMS FROM VARIOUS GROUPS AND INDIVIDUALS, CONCERNING TERMITE CONTROL, HAVE COME TO ME. I FIND THAT THE ONE PROBLEM WHICH IS MOST COMMONLY ENCOUNTERED IS - "WHAT ARE THE REASONS FOR THE HIGH PERCENTAGE OF CALL-BACKS?"

Some of the reasons for this high percentage of call-backs are:

- 1. FAILURE TO PERFORM THE FIRST PRINCIPLE OF TERMITE CONTROL WHICH
 IS MECHANICAL ALTERATION THE ESTABLISHING A MECHANICAL
 BARRIER BETWEEN SOIL AND WOOD.
- 2. FAILURE TO DO PROPER SOIL TREATING ESTABLISHING A CONTINUOUS CHEMICAL BARRIER.
- 3. FAILURE TO PROPERLY TREAT THE WALL VOIDS.
- 4. FAILURE TO TREAT INFECTED WOOD.
- 5. FAILURE TO UNDERSTAND THE BASIS UPON WHICH A JOB GUARANTEE

MECHANICAL ALTERATION: Any mechanical measure which renders a structure less susceptible to termite attack or which renders the immediate surroundings of a structure less favorable for termites. These measures include;

- (a) Structural modification, replacement and repair, for the purpose of preventing simultaneous access of termites to food and moisture.
- (B) THE INSTALLATION OF SPECIAL MECHANICAL BARRIERS IMPERVIOUS TO TERMITES FOR THE SAME PURPOSE.
- (c) THE REMOVAL OF CELLULOSE DEBRIS OR EXCESS MOISTURE IN THE ENVIRON-MENT OF THE STRUCTURE TO REDUCE INCIDENCE OF INFESTATION.

(D) PROVISION FOR ADEQUATE INSPECTION OF VULNERABLE AREAS OF THE STRUCTURE.

SOIL TREATING: THE APPLICATION OF CHEMICALS TO THE SOLID IMMEDIATELY ADJACENT TO OR UNDER STRUCTURE FOR THE PURPOSE OF PREVENTING SIMULTANEOUS ACCESS OF TERMITES TO STRUCTURAL WOOD AND SOIL MOISTURE OR FOR THE PURPOSE OF ELIMINATING EXISTING INFESTATIONS.

FOUNDATION TREATING: THE APPLICATION OF CHEMICALS TO ANY TYPE OF FOUNDATION FOR THE PURPOSE OF PREVENTING SIMULTANEOUS ACCESS OF TERMITES TO STRUCTURAL WOOD AND SOIL MOISTURE. IN CURRENT PRACTICE THIS INVOLVES CHIEFLY THE APPLICATION OF CHEMICALS TO SPACES OF VOIDS WITHIN THE FOUNDATION, THOUGH SURFACE APPLICATIONS ARE AT TIMESTINCLUDED.

WOOD TREATING: THE APPLICATION OF CHEMICALS TO WOOD TO RENDER IT RESISTANT TO TERMITE ATTACK OR TO ELIMINATE EXISTING INFESTATIONS. THE APPLICATION OF ANY, ANY COMBINATION OF, OR ALL OF THESE FOUR BASIC STEPS OF PROCEDURE AND THE RENDERING OF THE NECESSARY INSPECTION AND MAINTENANCE SERVICES SHALL BE DESCRIBED BY THE TERM "TO SERVICE" RATHER THAN THE TERM "TO TREAT".

BECAUSE OF THE DIFFICULTY OF PRESCRIBING PROCEDURES FOR ENTIRE BUILDINGS,
THE TERMITE COMMITTEE HAS SET UP APPROVED REFERENCES PROCEDURES FOR SPECIFIC
ELEMENTS OF CONSTRUCTION, RATHER THAN FOR ENTIRE STRUCTURES. IT IS BELIEVED
THAT ENOUGH OF THESE HAVE BEEN DESCRIBED AND PRESCRIBED FOR, SO THAT PROCEDURES
FOR SERVICING MOST STRUCTURES WILL BE FOUND IN A COMBINATION OF SOME SEVERAL
PROCEDURES FOR INDIVIDUAL ELEMENTS OF CONSTRUCTION. IN SOME CASES, THE RENDERING OF SERVICE TO ONLY A PART OR SECTION OF A STRUCTURE MAY BE JUSTIFIED.

IN ORDER THAT A CONCISE DEFINITION MAY BE MADE OF EACH OF THE VARIOUS KINDS OF JOBS THAT AN OPERATOR MAY BE CALLED UPON TO UNDERTAKE, THE TERMITE COMMITTEE PROPOSES THESE DEFINITIONS:

A STRUCTURE IS AN ENTIRE BUILDING.

A SECTION IS A PORTION OF A STRUCTURE, SPECIFICALLY DEFINED.

A COMPLETE STRUCTURAL JOB IS THE APPLICATION OF AS MANY OF THE FOUR STEPS OF PROCEDURE AS ARE INDICATED FOR ALL THE SUSCEPTIBLE ELEMENTS OF CONSTRUCTION IN A STRUCTURE.

A COMPLETE SECTIONAL JOB IS THE APPLICATION OF AS MANY OF THE FOUR STEPS OF PROCEDURE AS ARE INDICATED FOR ALL THE SUSCEPTIBLE ELEMENTS OF CONSTRUCTION IN A SECTION OF A STRUCTURE.

AN INCOMPLETE STRUCTURAL JOB IS THE APPLICATION OF FEWER THAN THE IN-DICATED NUMBER OF STEPS OF PROCEDURE FOR ALL THE SUSCEPTIBLE ELEMENTS OF CONSTRUCTION IN A STRUCTURE.

AN INCOMPLETE SECTIONAL JOB IS THE APPLICATION OF FEWER THAN THE IN-DICATED NUMBER OF STEPS OF PROCEDURE FOR ALL THE SUSCEPTIBLE ELEMENTS OF CONSTRUCTION IN A SECTION OF A STRUCTURE.

A SPOT JOB IS ANY STOP-GAP PROCEDURE FOR WHICH NO RESPONSIBILITY IS, OR SHOULD BE, ASSUMED.

ONLY COMPLETE JOBS, STRUCTURAL OR SECTIONAL, ARE APPROVED WITHOUT QUALIFICATION BY THE COMMITTEE. INCOMPLETE JOBS ARE RECOGNIZED WITHOUT PREJUDICE WHERE THEY CAN BE SHOWN TO MEET THE NEEDS OF A GIVEN CLIENT, OR CLIENTELE.

THE COMMITTEE RECOGNIZES THE RESPONSIBILITY OF THE INDUSTRY, THROUGH ITS MEMBERS, TO SERVE THE PUBLIC BY OFFERING:

- 1. SOUND COUNSEL, BASED ON GOOD JUDGMENT, BACKED BY ADEQUATE INFORMATION
- 2. A CONSISTENT STORY, BASED ON UNIFORM TERMINOLOGY AND PHRASEOLOGY.
- 3. ADEQUATE SERVICE, WHEN AND WHERE NEEDED.
- 4. COMPETITIVE PRICES, WITHIN A RANGE MUTUALLY ADVANTAGEOUS TO THE PUBLIC AND THE INDUSTRY.
- 5. MORAL AND FINANCIAL RESPONSIBILITY.

PREVENTING AND CONTROLLING DECAY OF WOOD IN BUILDINGS

A. F. VERRALL FOREST SERVICE - U. S. D. A.

TYPES OF FUNGI INFECTING LUMBER PRODUCTS:

- (1) Mold. Discolors surface, no effect on strength, increases absorptiveness.
- (2) STAIN. SIMILAR TO MOLDS BUT DISCOLORS INTERIOR OF WOOD ALSO.
- (3) DECAY. ACTUALLY DESTROYS WOOD SUBSTANCE.

DECAY FUNGI ARE PLANTS WHICH REQUIRE FAVORABLE GROWTH CONDITIONS:

- (1) TEMPERATURE. USUALLY NOT CONTROLLABLE IN BUILDINGS.
- (2) MOISTURE. CAN BE REGULATED TO CONTROL DECAY.
- (3) OXYGEN. USUALLY NOT CONTROLLABLE IN BUILDINGS.
- (4) FOOD. DECAY-RESISTANT WOODS AND PRESERVATIVE POISONS.

FUNDAMENTALS OF DECAY CONTROL AND PREVENTION ARE:

- (1) KEEP WOOD TOO DRY TO DECAY (BELOW 20% WATER OR AIR DRY)
- (2) OR USE DECAY-RESISTANT WOOD OR TREATED WOOD.

How Does wood become wet enough to decay:

- (1) Use of green or imperfectly seasoned lumber.
- (2) SOIL WATER.
 - A. DIRECT CONTACT OF WOOD AND SOIL.
 - B. WATER PASSING THROUGH CONCRETE SLABS.
 - c. CONDENSATION ON SUBSTRUCTURE OF BASEMENTLESS HOUSES.

- (3) RAIN WATER SEEPING INTO JOINTS.
- (4) CONDENSATION IN WALLS.
- (5) LEAKY PLUMBING AND MISCELLANEOUS SOURCES.

DECAY PREVENTION MEASURES:

- (1) USE BRIGHT DRY LUMBER.
- (2) SUBSTRUCTURES
 - A. CLEARANCE: FRAMING 18", TRIM 6" MINIMUM OR USE TREATED WOOD.
 - B. WATERPROOF BASEMENTS AND CONCRETE SLABS.
 - c. VENTILATION (1/160 OF GROUND AREA) OR USE SOIL COVER.
 - D. NO DIRT-FILLED PORCHES ATTACHED TO HOUSE UNLESS BELOW SILL.
 - E. TREATED WOOD IS GOOD INSURANCE FOR SILLS, HEADERS, LOW GIRDERS, PLATES ON CONCRETE, WOOD NEAR BASEMENT FLOORS.
 - F. EFFECTIVE FIRE STOPS.
- (3) Porches and exterior steps. Use treated wood or concrete and MASONRY IN SOUTHERN AND SOUTHEASTERN U. S.
- (4) SIDING, EXTERIOR TRIM, SCREENS, AND OTHER EXTERIOR WOODWORK.
 - A. GOOD ROOF OVERHANG. HIPPED ROOF BEST.
 - B. BREATHING PAPER UNDER WOOD SIDING.
 - c. Wood or Fiber Sheathing FAVORS DECAY. Use only with attention to A, B, E.
 - D. GOOD FLASHING, INCLUDING ROOF EDGES.
 - E. WATER-REPELLENT PRESERVATIVE TREATMENTS OR END AND BACK PRIMING.

WHAT TO DO WHEN DECAY IS FOUND:

- (1) CHECK FOR SOURCE OF WATER AND REMOVE IF POSSIBLE.
- (2) WOOD USED FOR REPLACEMENTS:
 - A. BRIGHT AND DRY.
 - B. IF REMOVAL OF WATER SOURCE IS UNCERTAIN USE PRESSURE-TREATED WOOD TO REPLACE DAMAGED FRAMING AND OTHER NON-PAINTED ITEMS AND WATER-REPELLENT TREATED (VACUUM OR SOAK TREATED) FOR OTHER ITEMS.
 - C. If "B" IS NOT FEASIBLE USE A HEAVY BRUSH APPLICATION AFTER SAWING TO SHAPE (5% CHLORINATED PHENOLS OR 20% COPPER NAPHTHENATE.) ALSO ON ADJACENT WOOD ALREADY IN STRUCTURE IF POSSIBLE.
- (3) DECAY IN ATTICS AND WALLS:
 - A. CHECK ROOF AND PLUMBING LEAKS.
 - B. If SOIL IS WET UNDER HOUSE USE SOIL COVER AND SEE THAT FIRE STOPS ARE EFFECTIVE.
 - C. IN COLDER AREAS A VAPOR BARRIER MAY BE NEEDED ON THE INSIDE OF THE WALL AND CEILING.
- (4) Porches and steps--replace with decay-resistant or treated wood.

 Raise bottom on elevated concrete step if not pressure treated.

 In place treatment of columns.
- (5) SIDING AND TRIM:
 - A. USE WATER-REPELLENT TREATMENT ON REPLACEMENTS.
 - B. If EXTENSIVE REPLACEMENTS ARE NEEDED CHECK DECAY PREVENTION MEASURES ABOVE FOR BEST CONSTRUCTION.
 - C. BEFORE REPAINTING, BRUSH A WATER-REPELLENT ON ALL VERTICAL AND HORIZONTAL JOINTS.
 - D. FOR DROP SIDING, TRIM PLACED OVER ENDS OF SIDING (RATHER THAN ABUTTING SIDING TO TRIM) IS SAFEST.

WATER CONDUCTING ROT:

IF EXTENSIVE ROT IS FOUND IN SUBSTRUCTURE AND EXTENDING UP INTO WALLS, FLOORS, ETC., A WATER-CONDUCTING ROTTER SHOULD BE SUSPECTED. THESE ARE RATHER RARE BUT VERY DESTRUCTIVE WHEN PRESENT.

WOOD PRESERVATIVES:

THERE ARE MANY GOOD PRESERVATIVES, BUT THEIR EFFECTIVENESS DEPENDS ON THE AMOUNT IN THE WOOD AND THE DEPTH OF PENETRATION. PRESSURE-TREATED WOOD IS BEST FOR MODERATE TO HIGH DECAY HAZARDS. PRESSURE-TREATMENT WITH CREOSOTE, PENTACHLOROPHENOL, OR COPPER NAPHTHEMATE PROBABLY WON'T BE PAINTABLE; WITH SALTS (AS WOLMAN SALTS, CHROMATED GIVE CHLORIDE) THE WOOD IS PAINTABLE PROVIDED IT IS THOROUGHLY DRIED AFTER TREATMENT. LUMBER VACUUM OR SOAK TREATED IN WATER-REPELLENT SOLUTIONS LEAVING A PAINTABLE SURFACE IS SOMETIMES AVAILABLE. MANY ITEMS, HOWEVER, MUST BE TREATED ON-THE-JOB OR AT LEAST BY THE REPAIRMAN.

THE ROLE OF WOOD PRESERVATIVES IN PREVENTION OF DAMAGE BY TERMITES AND FUNGI

BY
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OUTLINE

- A. THE DEMAND FOR LUMBER IN BUILDING CONSTRUCTION.
 - 1. RESIDENTIAL BUILDING
 - A. AMOUNT OF LUMBER USED AND FUTURE REQUIREMENTS.
 - B. INFLUENCE OF COSTS OF CONSTRUCTION MATERIALS.
 - C. USE OF LUMBER IN VARIOUS PARTS OF THE HOUSE.
 - 2. Non-RESIDENTIAL CONSTRUCTION.
 - 3. BUILDING MAINTENANCE AND REPAIR.
 - 4. A SUMMARIZATION OF THE SIGNIFICANCE OF LUMBER REQUIREMENTS TO PEST CONTROL OPERATORS AND TO WOOD PRESERVATION.
- B. WOOD DESTROYING AGENCIES AND THEIR DAMAGE.
 - 1. DECAY FUNGI.
 - 2. INSECTS.
 - A. TERMITES
 - B. POWDER POST BEETLES
 - C. CARPENTER ANTS

- 3. FIRE
- 4. VARIATIONS IN THE AMOUNT OF DAMAGE AND SUSCEPTIBILITY OF WOOD TO DETERIORATION.
 - A. WOOD IN CONTACT WITH THE GROUND.
 - B. WOOD INTERMITTENTLY SUBJECT TO MOISTURE.
 - C. WOOD NORMALLY PROTECTED BUT SUBJECT TO DECAY AND INSECT ATTACK.
- C. REQUIREMENTS OF A WOOD PRESERVATIVE.
 - 1. PRIMARY OBJECTIVES.
 - A. DESTRUCTION OF ORGANISMS
 - B. PERMANENCE
 - 2. SECONDARY OBJECTIVES.
 - A. EASE OF HANDLING.
 - B. ECONOMICS OF INITIAL INSTALLATIONS AND REPLACEMENT.
- D. RECOGNIZED AND APPROVED WOOD PRESERVATIVES.
 - 1. OIL AND OIL-BORNE PRESERVATIVES.
 - A. CREOSOTE
 - B. PENTA AND COPPER NAPHTHENATE.
 - 2. WATER BORNE PRESERVATIVES.
 - 3. WATER REPELLENT PRESERVATIVES.

- E. PRESERVATIVE TREATING METHODS.
 - 1. Non-pressure processes.
 - A. COLD-SOAKING.
 - B. HOT AND COLD BATH.
 - C. DIFFUSION METHODS.
 - 2. PRESSURE PROCESSES.
 - A. EMPTY CELL.
 - B. FULL CELL.
 - 3. DIPPING, BRUSHING, AND SPRAYING.
- F. REQUIREMENTS AND SPECIFICATIONS FOR ADEQUATE WOOD TREATMENT.
 - 1. RETENTION OF PRESERVATIVE.
 - 2. DISTRIBUTION OF PRESERVATIVE.
 - 3. VARIATIONS IN REQUIREMENTS DUE TO USE OF TREATED WOOD.
- G. SERVICE RESULTS OF PROPERLY TREATED WOOD.
 - 1. DURABILITY IN CONTACT WITH THE GROUND.
 - 2. DURABILITY ABOVE GROUND, IN BUILDINGS.
 - 3. BARRIER EFFECT OF TREATED WOOD.
- H. COMPLIMENTARY FUNCTIONS OF CHEMICAL BARRIERS AND PRESERVATIVELY TREATED WOOD.

AN ARCHITECTS VIEW ON AVOIDING DAMAGE BY TERMITES AND FUNGI

JESSIE M. PAGE A.I.A. RALEIGH, N. C.

THE PROBLEM OF DECAY AND TERMITE DAMAGE

EXTENT OF DAMAGE

MORE SERIOUS TODAY

MOST OF DAMAGE UNNECESSARY

WE MUST WORK OUT TOGETHER A WAY TO USE WHAT WE KNOW EFFECTIVELY.

THE POSITION OF THE ARCHITECT

CONSIDERS TERMITE AND DECAY DAMAGE IN SAME WAY AS

A BEAM

A HEATING SYSTEM

IN OTHER WORDS HE CONSIDERS

PREVENTION OF WOOD DECAY AS IMPORTANT AS OBTAINING GOOD WIRING

PREVENTION OF TERMITE DAMAGE AS IMPORTANT AS OBTAINING A SOUND MASONRY JOB

HE USES TECHNICAL INFORMATION FURNISHED BY OTHERS

SERVICES BY OTHERS

SUCCESS DEPENDS ON HIS ABILITY TO COORDINATE

TYPE OF INFORMATION ARCHITECT NEEDS

FACTS, RECOMMENDATIONS

SPECIFICATIONS AND DETAILS

IN BRIEF FORM

TECHNICAL INFORMATION ON DECAY AND TERMITE PROTECTION MEASURES NEEDED.

SUGGESTED FORMAT FOR DATA SHEET FOR ARCHITECTS

TITLE, FILE No., SIZE AND SHAPE

CONTENT

A WOOD TREATMENT SECTION

CHEMICALS AND USES

TYPICAL SPECIFICATIONS

BRUSH OR SPRAY

MMERSION

DIPPING OR COLD SOAKING

PRESSURE TREATMENT

WOOD TO BE PAINTED

WOOD TO BE NATURAL

CHEMICAL BARRIER SECTION

MATERIALS & USES

TYPICAL SPECIFICATIONS FOR SOIL TREATMENT

PHYSICAL BARRIER SECTION

MATERIALS AND USES

TYPICAL SPECIFICATIONS FOR TERMITE SHIELDS

FOUNDATIONS - MASONRY, CONCRETE, CONCRETE CAP.

GENERAL CONSIDERATIONS SECTION

AVOID CONTACT BETWEEN WOOD AND SOIL

ADEQUATE CRAWL SPACE BENEATH HOUSE

ADEQUATE VENTILATION

CLEAR ALL WASTE WOOD AND ORGANIC MATTER

ADEQUATE DRAINAGE

WOOD PORCHES, COLUMNS, ETC.

WATER TIGHT ROOFS

SLAB ON GROUND PRECAUTIONS

PRECAUTIONS AGAINST SLAB AND WALL PENETRATIONS

IMPORTANCE OF DRY LUMBER

VAPOR BARRIERS

CONDENSATION

PLUMBING LEAKS

FLASHING

INSPECTION

GROUND WATER

SOUND CONSTRUCTION PRACTICE

COOPERATION OF ALL NEEDED FOR SUCCESSFUL EXECUTION

ARCHITECT

CONTRACTOR

OWNER

PEST CONTROL OPERATOR

THE RECOGNITION OF INSECT DAMAGE

JOHN V. OSMUN PURDUE UNIVERSITY

- A. THE IMPORTANCE OF THE TELL-TALE SIGNS OF INSECTS AND OTHER PESTS.
- B. TYPES OF PRODUCTS AND MATERIALS SUSCEPTIBLE TO RECOGNIZABLE DAMAGE.
 - 1. FABRICS OF ANIMAL ORIGIN.
 - A. WOOL
 - B. FUR
 - C. LEATHER
 - 2. FABRICS OF SYNTHETIC AND PLANT ORIGIN.
 - A. FINISHED CLOTH
 - B. RAYON
 - C. BOOKS AND THEIR BINDINGS
 - 3. WOOD AND WOOD PRODUCTS.
 - A. WOOD WITH BARK
 - B. UNSEASONED LUMBER
 - C. SEASONED LUMBER
 - D. PAPER AND PAPER PRODUCTS
 - 4. FOOD AND MEDICINAL PRODUCTS.
 - A. WHOLE GRAINS
 - B. FLOUR AND MEAL

- c. PELLETS
- D. CHEESE
- E. MEDICINAL CAPSULES
- C. INSECTS THAT PRODUCE RECOGNIZABLE DAMAGE
 - 1. CLOTHES MOTHS
 - A. WEBBING
 - B. CASEMAKING
 - C. CHARACTERISTIC PELLETS
 - 2. CARPET BEETLES
 - A. ON WOOL
 - B. IN FUR
 - C. CHARACTERISTIC PELLETS
 - 3. HIDE BEETLES
 - A. IN LEATHER
 - B. IN WOOD
 - 4. SILVERFISH
 - 5. CABINET BEETLES
 - A. IN FUR
 - B. IN FOOD AND MEDICINAL PRODUCTS

- 6. COCKROACHES
 - A. AMERICAN AND ORIENTAL
 - B. GERMAN
 - C. BROWN-BANDED
 - D. CHARACTERISTIC DROPPINGS
- 7. TERMITES SUBTERRANEAN
 - A. IN WOOD
 - B. IN WOOD PRODUCTS
 - C. IN CLOTH
- 8. TERMITES DRY WOOD
- 9. CARPENTER ANTS
- 10. POWDER POST BEETLES
 - A. LYCTIDAE
 - B. ANOBIIDAE
 - C. BOSTRICHIDAE
- 11. ROUND-HEADED BEETLES
- 12. LONG-HORNED BEETLES
- 13. CARPENTER BEE
- 14. CADELLE
 - A. IN FOOD

- B. IN WOOD
- 15. WHARF BORERS
- 16. OLD HOUSE BORER
- 17. AMBROSIA BEETLE
- 18. DRUGSTORE AND CIGARETTE BEETLES
 - A. IN FOOD PRODUCTS
 - B. IN CONTAINERS
- 19. INDIAN MEAL MOTH
- 20. MEDITERRANEAN FLOUR MOTH
- 21. ANGOUMOIS GRAIN MOTH
- 22. GRANARY WEEVIL
- 23. BEAN WEEVIL
- D. RODENTS
 - 1. TEETH MARKS
 - 2. DROPPINGS
- E. DAMAGE RESEMBLING PEST INJURY
 - 1. TEARS
 - 2. Burns

PEST CONTROL OPERATORS AND PUBLIC HEALTH

CHARLES M. WHITE N.C. BOARD OF HEALTH

1. ORGANIZATION OF PUBLIC HEALTH - - THREE COMPONENT AGENCIES

- A. U. S. PUBLIC HEALTH SERVICE
 - (A) HAS AUTHORITY ONLY IN MATTERS OF INTERSTATE SIGNIFICANCE.
 - (B) PROVIDE SOME FUNDS TO ASSIST STATES AND LOCAL HEALTH DEPARTMENTS.
 - (c) CONDUCT RESEARCH. DEMONSTRATION AND PILOT PROJECTS.
 - (D) WHEN REQUESTED BY STATE HEALTH OFFICER PROVIDE CONSULTATION TO STATES AND HELP WITH INVESTIGATIONS.
 - (E) GIVE AID TO STATES WHEN REQUESTED BY STATE HEALTH OFFICER TO DO SO IN DISASTERS AND IN THE SUPPRESSION OF EPIDEMICS.
- B. STATE BOARD OF HEALTH
 - (A) RESPONSIBLE FOR THE ENFORCEMENT OF STATE PUBLIC HEALTH LAWS.
 - (B) PROVIDE CONSULTATION AND TECHNICAL ASSISTANCE TO LOCAL HEALTH DEPARTMENTS. HAS NO SUPERVISORY AUTHORITY WHERE LOCAL HEALTH DEPARTMENTS ARE CONCERNED.
 - (c) PROVIDE FINANCIAL AID AND OTHER FACILITIES TO LOCAL HEALTH DEPARTMENTS.
 - (D) CONDUCT SPECIAL INVESTIGATIONS AND SURVEYS.
- C. LOCAL HEALTH DEPARTMENTS COUNTY OR CITY
 - (A) RESPONSIBLE FOR ALL PHASES OF PUBLIC HEALTH IN AREA OF JURISDICTION.
 - (B) MINIMUM PERSONNEL HEALTH OFFICER, SANITARIAN, NURSE AND CLERK.

II. HOW PUBLIC HEALTH ALDES PCO'S

- A. CREATE DEMAND FOR SERVICES
 - (A) INSPECTION OF FOOD HANDLING ESTABLISHMENTS.
 - (B) THROUGH DEMONSTRATION AND EDUCATION SHOW VALUE OF INSECT AND RODENT CONTROL.
- B. HELP SUPPRESS UNFAIR COMPETITION
 - (A) Should maintain list of all PCO's who give satisfactory service and give copy upon request to public.
 - (B) HELP IN THE PROSECUTION OF THOSE WHO VIOLATE PCO LAWS AND REGULATIONS.

C. PROVIDE INFORMATION

- (A) SUPPLY LITERATURE CONCERNING INSECTS AND RODENTS OF PUBLIC HEALTH SIGNIFICANCE.
- (B) GIVE TECHNICAL CONSULTATION.
- D. PERFORM CONTROL MEASURES THAT SUPPLEMENT WORK DONE BY PCO'S.
 - (A) THE SUPPRESSION OF FLY BREEDING.
 - (B) RAT POISONING OUTSIDE OF ESTABLISHMENTS.
 - (c) Mosquito control.

III. How PCO'S HELP PUBLIC HEALTH

- A. PROTECT PUBLIC FROM INSECT AND RODENT BORN DISEASES.
 - (A) PERIODIC SERVICE TO FOOD HANDLING ESTABLISHMENTS.
 - (B) THE CONTROL OF RATS IN FOOD STORAGE AREAS.
 - (c) THE CONTROL OF OTHER DISEASE VECTORS.
- B. RELIEVE LOCAL HEALTH DEPARTMENT OF MANY JOBS.
 - (A) PERFORM WORK FOR WHICH LOCAL FUNDS CAN NOT BE OBTAINED.
 - (B) WORK IN PRIVATE ESTABLISHMENTS WHERE PUBLIC FUNDS SHOULD NOT BE ROUTINELY SPENT.
 - (c) Do JOB HEALTH DEPARTMENT DOES NOT HAVE TIME TO PERFORM.
- C. DEVELOPMENT OF CONTROL METHODS.
 - (A) DISPERSAL EQUIPMENT.
 - (B) TECHNIQUES
- D. CREATE DEMAND FOR EXTENDED SERVICE.
 - (A) BY DEMONSTRATING EFFECTIVENESS IN SMALL AREA. PUBLIC FUNDS MORE EASILY OBTAINED.
 - (B) ADVERTISING.
 - (c) PREMISE TO PREMISE CONTACTS.
- IV. How BETTER COOPERATION CAN BE ACHIEVED
 - A. ESTABLISH LIAISON.
 - (A) KNOW EACH OTHER BETTER.
 - (B) DISCUSS MUTUAL PROBLEMS.

- (c) ATTEND EACH OTHERS MEETINGS.
- B. PLAY FAIR AT ALL TIMES.
 - (A) NEVER START FALSE RUMORS.
 - (B) WHEN WRONGED DISCUSS MATTER WITH GUILTY PARTY BEFORE TAKING ACTION.
- C. HELP EACH OTHER.

HISTORY

THE NORTH CAROLINA PEST CONTROL ASSOCIATION, INC.

COMPILED BY
MISS DELIA COPLEY, SECRETARY & TREASURER

IT WAS AS FAR BACK AS 1949 THAT SOME LEGITIMATE PEST CONTROL OPERATORS IN NORTH CAROLINA WERE WORRYING ABOUT RACKATEERS. WALTER WILSON AND DAVE GOFORTH TOOK THEIR WORRIES TO DR. CLYDE F. SMITH, HEAD OF ENTOMOLOGY AT NORTH CAROLINA STATE COLLEGE AND SUGGESTED LEGISLATION TO OUST THE RACKATEER FROM THE STATE. STEMMING FROM THIS FIRST CONFERENCE WERE MANY CONFERENCES RELATIVE TO LEGISLATION AND TOWARD ORGANIZING PEST CONTROL OPERATORS IN NORTH CAROLINA. WALTER WILSON AND DAVE GOFORTH WENT BACK TO SEE DR. SMITH DURING THE FOLLOWING YEAR AND AFTER LENGTHY DISCUSSIONS A DECISION WAS REACHED. THUS THE FIRST ANNUAL NORTH CAROLINA PEST CONTROL OPERATOR'S SHORT COURSE WAS HELD IN RALEIGH ON FEBRUARY 20, 1951, WITH THIRTY-SEVEN PEST CONTROL OPERATORS PRESENT.

IN SEPTEMBER OF 1950, WHEN PLANS WERE BEING MADE FOR THE FIRST PCO SHORT COURSE, MR. GEORGE JONES, EXTENSION ENTOMOLOGIST, STATE COLLEGE, MADE THE FOLLOWING STATEMENT IN A LETTER TO WALTER WILSON: "WE, HERE AT STATE COLLEGE IN BOTH FIELD WORK AND IN RESEARCH AND TEACHING, BELIEVE THAT PEST CONTROL WORK IS BECOMING OF INCREASED IMPORTANCE. WE BELIEVE THAT OUR DEPARTMENT CAN BE OF CONSIDERABLE ASSISTANCE TO THE INDUSTRY IN THE STATE AND ARE ANXIOUS TO RENDER AS MUCH SERVICE AS WE CAN".

FOLLOWING THE FIRST PCO SHORT COURSE, AN INFORMAL MEETING WAS HELD IN J. FRANK GOFORTH'S ROOM AT THE SIR WALTER HOTEL IN RALEIGH, TO DISCUSS A CONSTITUTION AND BY-LAWS FOR THE PROPOSED ORGANIZATION. THE CONSTITUTION AND BY-LAWS OF BOTH THE NATIONAL PEST CONTROL ASSOCIATION AND THE VIRGINIA PEST CONTROL ASSOCIATION WERE USED AS GUIDES IN THE DISCUSSION.

During the annual meeting of the National Pest Control Association in Boston during the fall of 1951, Walter Wilson, Walter Killough, Ted Oser, Luther Church, Sr., Henry Glasgow, Sr., Jake Pressman and William O. Buetner, then NPCA Executive Secretary and now deceased, met on the mezzanine floor of the Hotel Statler and discussed some of the problems confronting the formation of a pest control association in North Carolina as well as advantages for the formation of such an association. During this informal get-together, Jake Pressman was asked to set a date for the next meeting to continue this discussion and he selected the date of December 3, 1951 and the location selected was the Robert E. Lee Hotel in Winston-Salem, N. C.

When the Meeting was called to order on December 3, 1951 by the temporary chairman, Walter Killough, the following people were present: Dave Goforth, who was elected chairman for the discussion and adoption of the Consitution and By-Laws, John Young, acting as secretary, Marvin Scull, A. T. Best, J. P. Hatley, W. G. Williams, Ivey Coward, B. B. Vickory, J. A. Stone, J. W. Taylor, J. Frank Goforth, Lacy Webster, L. E. Killough, Roy Goforth, M. F. Lanier, Charles Di Maria, J. O. Cleary, T. W. Crosby, J. C. McKibben, Luther Church, Sr., Walter Wilson, Henry Glasgow, Sr., and Charlie Hill. This group elected the first officers which were as follows: Dave Goforth, President; A. T. Best, Vice-President; Walter Wilson, Secretary and Treasurer; J. W. Taylor and Marvin Scull, Board of Directors. In addition to adopting a Constitution and By-Laws, which were revised in 1955,

THE NAME OF THE NEW ORGANIZATION WAS ADOPTED -- NORTH CAROLINA PEST CONTROL ASSOCIATION AND ON FEBRUARY 22, 1952 IT WAS INCORPORATED IN THE STATE OF NORTH CAROLINA.

IN A LETTER WRITTEN BY WILLIAM O. BUETNER TO DR. SMITH, HE MADE THE FOLLOWING STATEMENT AFTER THE FIRST PCO SHORT COURSE HELD AT STATE COLLEGE ON FEBRUARY 20 AND 21, 1951: "I HASTEN TO DROP YOU THESE FEW LINES OF CONGRATULATIONS BECAUSE I REALLY FEEL THAT A SWELL JOB WAS DONE BY YOU AND THE STAFF IN PROVIDING THE MEETING ON FEBRUARY 20TH AND 21ST FOR THE NORTH CAROLINA PCO'S. THERE IS NO QUESTION IN MY OWN MIND BUT THAT EVERY PCO WHO ATTENDED RECEIVED A GREAT DEAL OF BENEFIT."

THE SECOND ANNUAL PCO SHORT COURSE WAS HELD IN RALEIGH AT STATE COLLEGE ON FEBRUARY 13TH AND 14TH, 1952, WITH APPROXIMATELY 44 PCO'S ATTENDING.

IN 1952 THE FIRST ANNUAL SUMMER MEETING OF THE NCPCA WAS HELD IN GREENSBORO, WITH ONLY TEN MEMBERS PRESENT. OTHER THAN HANDLING ROUTINE MATTERS, THE THIRD ANNUAL PCO SHORT COURSE WAS ANNOUNCED, THE DATE TO BE IN FEBRUARY, 1953.

During the year of 1952, organizational procedures were handled, such as establishing banking facilities, printing membership cards, etc. A SIGNIFICANT ITEM ON THE AGENDA WAS THE DISCUSSION ABOUT A REGIONAL SCHOOL AT N. C. State College if the National Pest Control Association should Decide it would be advantageous.

IN VIEW OF THE FACT THAT THE FIRST OFFICERS HAD HARDLY GOTTEN THEIR FEET WET, IT WAS VOTED BY THE MEMBERSHIP MEETING IN FEBRUARY OF 1953 THAT THEY CONTINUE IN OFFICE FOR ANOTHER YEAR.

The second annual summer meeting was held in August of 1953 at Carolina Beach, with only 8 members present. In view of the fact that all members of the Board of Directors were present, an official meeting was held by them to handle routine matters. Perhaps the most significant fact brought out at this meeting was Dr. Smith's statement of the need of a qualified person at N. C. State College to do research work on insects that affect both man and animals.

At the membership meeting, which followed the fourth annual PCO Short Course in February of 1954, the following officers were elected: Walter Wilson, President; Eugene Mabel, Vice-President; Marvin Scull, Secretary-Treasurer; J. W. Taylor and Dave Goforth, Board of Directors.

JUNE OF 1954 MARKED ANOTHER MILESTONE IN THE HISTORY OF THE NCPCA WITH THE THIRD ANNUAL SUMMER MEETING WHICH WAS HELD AT CAROLINA BEACH, WITH SEVENTEEN MEMBERS PRESENT. AT THIS SESSION, THOSE WHO ATTENDED ADOPTED THE OFFICIAL NCPCA INSIGNIA, NOW USED FOR DECALS AND ADVERTISING PURPOSES TO IDENTIFY A FIRM AS AN NCPCA MEMBER. IN JUNE OF 1954, MARVIN SCULL IN-AUGERATED "THE TAR HEEL PEST", NOW A MONTHLY PUBLICATION OF THE NCPCA. IT ALL STARTED WITH A SUGGESTION THAT A MEMBERSHIP ROSTER BE MAILED TO CERTAIN PUBLIC OFFICES, SUCH AS CHAMBER OF COMMERCE OFFICES, BETTER BUSINESS BUREAUS, ETC., IN THE STATE. CONSIDERABLE DISCUSSION WAS DEVOTED TO THE STANDARDIZATION OF TERMITE CONTROL PROCEDURES, WHICH LED UP TO THE APPOINTMENT OF A COMMITTEE, HEADED BY J. E. HUTTO AND ASSISTED BY DAVE GOFORTH, GENE MABEL, GEORGE JONES, DR. SMITH AND A. T. BEST, WHOSE RESPONSIBILITY IT WAS TO DRAW UP A SET OF MINIMUM STANDARDS FOR TERMITE CONTROL.

THE YEAR 1955 WAS AN HISTORIC YEAR, BEGINNING WITH THE ELECTION OF A NEW SLATE OF OFFICERS AT THE BUSINESS SESSION, WHICH FOLLOWED THE FIFTH ANNUAL PCO SHORT COURSE: J. W. TAYLOR, PRESIDENT; EUGENE MABEL, VICE-PRESIDENT; A. T. BEST, SECRETARY-TREASURER; LACY WEBSTER AND WALTER WILSON TO THE BOARD OF DIRECTORS. AT THIS TIME THE MINIMUM STANDARDS FOR TERMITE CONTROL WERE ADOPTED AND INCORPORATED IN THE MINUTES OF THE ASSOCIATION AND LATER INCORPORATED IN THE N. C. STRUCTURAL PEST CONTROL ACT, WHICH BECAME A LAW THIS SAME YEAR.

IT WAS IN MARCH OF 1955 THAT "THE TAR HEEL PEST" BECAME A MONTHLY PUBLICATION OF THE NCPCA. THE PRESIDENT APPOINTED DELIA COPLEY AS EDITOR OF THE PUBLICATION.

AT THE JANUARY MEETING, THE PRESIDENT APPOINTED A COMMITTEE COMPOSED OF W. C. McCLELLAN, CHAIRMAN, ASSISTED BY SOL BEST, IKE O'HANLON, WALTER WILSON, AND DR. SMITH, TO BEGIN WORK ON STATE LEGISLATION, THE LESSER OF TWO EVILS, THE GREATER OF WHICH WOULD BE LOCAL LEGISLATION. MANY SUBSEQUENT MEETINGS WERE DEVOTED TO DISCUSSIONS RELATIVE TO LEGISLATION AND THOSE PEOPLE WHO FIGURED PROMINENTLY IN THIS HISTORIC PHASE, OTHER THAN THE COM-MITTEE, WERE ARNOLD SCHULMAN AND TED OSER. IT WAS ON THE 17TH DAY OF MAY, 1955, THAT THE NORTH CAROLINA STRUCTURAL PEST CONTROL ACT WAS ENACTED INTO LAW, EFFECTIVE DATE JULY 1, 1955. THE GOVERNOR, LUTHER H. HODGES, APPOINTED THE FOLLOWING COMMISSION: DR. CLYDE F. SMITH, DR. D. L. WRAY, I. H. O'HANLON WALTER H. WILSON AND JOHN L. REITZEL, DEPARTMENT OF AGRICULTURE. THIS COM-MITTEE THEN ELECTED DR. SMITH, CHAIRMAN AND DR. WRAY, SECRETARY. AT THE MID-SUMMER MEETING, HELD AT CAROLINA BEACH IN JULY OF 1955, COMMISSIONER L. Y. BALLENTINE EXPLAINED TO THE MEMBERSHIP THE NEW LAW INCLUDING SUCH DETAILS AS LICENSE FEE, VIOLATIONS, GRANDFATHERS CLAUSE, ETC. ALSO DURING 1955, THE CONSTITUTION AND BY-LAWS WERE REVISED BY A COMMITTEE COMPOSED OF; DR. SMITH, CHAIRMAN, ASSISTED BY WALTER WILSON, A. T. BEST, DAVE GOFORTH, T. M. GUNN AND IKE O'HANLON. WORK WAS ALSO STARTED BY THE WOOD DESTROYING ORGANISMS COMMITTEE, COMPOSED OF ADRAIN GAYNOR, CHAIRMAN, ASSISTED BY LACY WEBSTER, T. M. GUNN, M. F. LANIER, LEE MCINTIRE AND DELMAR WELLS. THE MEM-BERSHIP DECIDED AT THAT JULY MEETING TO DEFRAY DR. SMITH'S EXPENSES TO THE PURDUE SHORT COURSE IN ORDER TO GET FIRST HAND INFORMATION THAT WOULD BENE-FIT HIM IN PLANNING FUTURE PCO SHORT COURSES FOR NORTH CAROLINA PCO'S.

Following the sixth annual PCO Short Course held at State College on January 6 and 7, 1956 with 87 in attendance, a membership meeting was held. The following officers were elected: T. M. Gunn, President; Roy Goforth, Vice-President; Delia Copley, Secretary-Treasurer; J. W. Taylor and Ivey Coward to the Board of Directors.

During the year of 1956, the most outstanding events have been the participation of our Association in the North Carolina Public Health Association convention booth in Charlotte. A Committee composed of W. I. Beam, Jr., Chairman, assisted by Louis Killough and David Dodd set up and manned the booth.

THE FIFTH ANNUAL MID-SUMMER MEETING HELD AT ASHEVILLE IN JULY OF 1956 WAS PERHAPS THE MOST OUT-STANDING OF ALL SUMMER MEETINGS. MEMBERSHIP ATTENDANCE REACHED THE FIFTY MARK. THE COMMITTEE RESPONSIBLE FOR THE PROGRAM MATERIAL WAS COMPOSED OF DELIA COPLEY, CHAIRMAN, ASSISTED BY A. T. BEST, WALTER WILSON, JIM GASQUE AND FRED SHELTON.

IT WAS AT THAT CONVENTION THAT THE MEMBERSHIP VOTED FOR A THREE-DAY PCO SHORT COURSE AND THE PRESIDENT APPOINTED THE FOLLOWING COMMITTEE: ROY GOFORTH, CHAIRMAN, ASSISTED BY W. I. BEAM, Jr., IVEY COWARD, DELIA COPLEY AND A. R. TURNER, TO SERVE AS PROGRAM COMMITTEE FOR THE SEVENTH ANNUAL PCO SHORT COURSE, JANUARY 15, 16 AND 17, 1957.

THE NCPCA MEMBERSHIP AS OF DECEMBER, 1956, TOTALED 92, OF WHICH 74 WERE ACTIVE MEMBERS, 7 WERE LIMITED MEMBERS AND 11 WERE ALLIED MEMBERS. THE ORIGINAL CHARTER MEMBERSHIP TOTALED 19. THERE WERE TWO HONORARY MEMBERS, DR. CLYDE F. SMITH, HEAD OF ENTOMOLOGY, N. C. STATE COLLEGE AND CHAIRMAN OF THE N. C. PEST CONTROL COMMISSION AND MR. GEORGE D. JONES, EXTENSION ENTOMOLOGIST, N. C. STATE COLLEGE.

IN THE BEGINNING, WHEN THE IDEAL OF WRITING UP THIS HISTORY OF THE NCPCA WAS PROJECTED, THE WRITER ASKED ONE QUESTION: "WHAT WERE SOME OF THE TOUGHEST BRIDGES THAT WERE CROSSED IN THE EARLY FORMATIVE DAYS OF THE ASSOCIATION?".

THE ANSWERS RECEIVED WERE AS FOLLOWS:

DAVID L. GOFORTH, GREENSBORD, N. C.: "THE TOUGHEST THING WE HAD TO CONTEND WITH WAS FIXING THE CONSITITUTION AND BY-LAWS TO GIVE THE SMALLEST PROTECTION FROM THE STRONGER COMPANIES. AND TO SELL HIM ON THE IDEA THAT THE POWER OF THE ASSOCIATION WAS IN THE HAND OF THE MEMBERSHIP AND NOT IN ANY GROUP BELONGING TO THE ASSOCIATION. SOME OF THE BIGGER COMPANIES WOULD NOT COME IN AT FIRST BECAUSE OF THE CONSTITUTION AND BY-LAWS, HOWEVER, THE SMALLER COMPANIES STUCK TOGETHER AND WOULD NOT BUDGE AN INCH."

DR. CLYDE F. SMITH, RALEIGH, N. C.: "I THINK THE BIGGEST BRIDGE IN THE EARLY DAYS OF THE ASSOCIATION WAS TO GET THE MEMBERS SO THEY WERE NOT SUPICIOUS OF EACH OTHER."

J. FRANK GOFORTH, HIGH POINT, N. C.: "ONE OF THE TOUGHEST BRIDGES THE ASSOCIATION HAD WAS HOLDING ANY ONE COMPANY TO TWO VOTES. ONE LARGE COMPANY REFUSED TO JOIN IN THE EARLY DAYS DUE TO THIS CLAUSE. ANOTHER SNAG WAS GETTING SUPPORT OF THE PUBLIC."

* * * * * *

THE FOLLOWING PERSONS AND SOURCES OF INFORMATION WERE INSPIRATIONAL IN COMPILING THIS HISTORY OF THE NORTH CAROLINA PEST CONTROL ASSOCIATION, INC.:

HENRY GLASGOW, SR., SALEM, VA., LETTER, AUGUST 1955

DAVID L. GOFORTH, GREENSBORO, N. C., LETTER, JULY 1955
J. FRANK GOFORTH, HIGH POINT, N. C., LETTER, AUGUST 1955

DR. CLYDE F. SMITH, AFTER DINNER SPEECH, "WHAT DOES THE NORTH CAROLINA PEST CONTROL ASSOCIATION MEAN TO YOU?", JULY, 1955.

WALTER H. WILSON, WINSTON-SALEM, N. C., THE USE OF HIS FILES RELATIVE TO THE EARLY DAYS OF THE NCPCA

J. W. TAYLOR, WILMINGTON, N. C., LETTER AUGUST, 1955. MINUTES BOOK OF THE NCPCA.

WOOD-DESTROYING ORGANISMS REPORT FOR AND TO THE VETERANS ADMINISTRATION

| Two copies must be submitted directly to: | Date |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| LOAN GUARANTY DIVISION | |
| VETERANS ADMINISTRATION | File No |
| NISSEN BUILDING WINSTON-SALEM, N. C. | 110 110 |
| | |
| Location of Property | |
| Buyer | |
| <i>y</i> , | |
| Lender | |
| Seller. | |
| INFESTATION: | |
| Was there evidence of infestation of wood-dest specify: Termites: Powder Post Beetles: I | roying organisms? YesNo |
| | |
| Was infestation active? Yes No If "No" | * |
| If no treatment was found necessary to property, destroying organisms which may show up within 90 of | the undersigned agrees to treat, free of charge, for any wood- |
| DAMAGE: | lays of date of this report. |
| | cted areas damaged sufficiently to cause structural weakness? |
| Yes No If answer is "Yes," specify: Term | ites : Powder Post Beetles : Fungi : Others |
| (specify) | |
| Were damaged timbers or affected areas repaired to c | orrect structural weakness? Yes No |
| TREATMENT: | |
| Was house treated for wood-destroying organism | s? Yes |
| | Others (specify) |
| | |
| If treated, this property is covered by a written Guarantee extends a minimum of (1) one year from | guarantee covering organisms for which treatment was made. late of this report and is renewable annually for a minimum |
| of 4 (four) years for \$annually. | and the same to removable annually for a minimum |
| | |
| MATERIAL: | |
| If house was treated, what material was used? | |
| | |
| I CERTIFY THAT the above statements are tru wood-destroying organisms or damage causing a struct surface flooring and below and other visible areas. | e, and the property is now free of any visible signs of active tural weakness to the structural timbers or areas including |
| A fee of \$ was charged for th | is report. |
| | By |
| | • |
| | Firm |
| | Address (Street) |
| | |
| | (City) (State) |
| North Carolina Pest Control License No. | |
| *The Veterans Administration has established a minir and \$15.00 for houses over 1,000 square feet as a reaso | num charge of \$10,00 for houses 1,000 square feet and under, |
| | |
| | Remarks: No Yes (Over) |

Form No. 1, September 1956 Approved by N. C. Veterans Administration Regional Office



FLEA



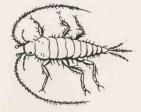
MOSQUITO



CLOTHES MOTH



SPIDER



SILVERFISH



COLOR BY

Common household insects



CRICKET



HOUSE FLY



CHIGGER



ANT



BOX ELDER BUG



COCKROACH



TERMITE

PUBLICATIONS OF SPECIAL INTEREST TO PCO'S

- 1. HANDBOOK OF PEST CONTROL, ARNOLD MALLIS, 1954. FROM PEST CONTROL, 1900 EUCLID BLDG, CLEVELAND 15, OHIO (\$9.25)
- 2. TERMITE CONTROL FOR HOME OWNERS, CHARLES B. ROMA, 1955. FROM CHARLES B. ROMA Co., Los Angles, California. (\$5.00)
- 3. PESTS OF STORED GRAIN & GRAIN PRODUCTS, RICHARD T. COTTON, 1956, FROM BURGESS PUBL. Co., 426 SOUTH SIXTH STREET, MINNEAPOLIS 15, MINN. (\$4.00)
- 4. WOODWORM ITS BIOLOGY & EXTERMINATION, NORMAN E. HICKEN, 1954. FROM E. W. CLASSEY, 22 HARLINGTON ROAD EAST, FELTHAM, MIDDLESEX, ENGLAND. (APPROX. \$3.00)
- 5. PRINCIPLES OF WEED CONTROL, GILBERT H. AHLGREN, GLENN C. KLINGMAN & DALE E. WOLF, 1951. JOHN WILEY & SONS, INC., NEW YORK. FROM FOLLETT COLLEGE BOOK COMPANY, 1000 W. WASHINGTON BLVD, CHICAGO 7, ILL. (\$5.70)
- 6. DWELLERS IN DARKNESS, S. H. SKAIFE, 1955. FROM E. W. CLASSEY, 22 HARLINGTON ROAD EAST, FELTHAM, MIDDLESEX, ENGLAND. (\$3.50)
- 7. OUR ENEMY THE TERMITE, THOMAS ELLIOTT SNYDER, 1948. COMSTOCK PUBL. CO., ITHACA, NEW YORK. (OUT OF PRINT). FROM FOLLETT COLLEGE BOOK COMPANY, 1000 W. WASHINGTON BLVD, CHICAGO 7, ILL. (\$3.30)
- 8. Termites & Their Control, Charles A. Koford, et al, 1946. University of California Press, Berkeley, California (Out of Print). From Pest Control 1900 Euclid Bldg., Cleveland 15, Ohio (\$7.00)
- 9. A MANUAL OF PARASITIC MITES., E. W. BAKER, ET AL, 1956. FROM PEST CONTROL, 1900 EUCLID BLDG., CLEVELAND 15, OHIO. (\$4.25)
- 10. PREVENTING DAMAGE TO BUILDINGS BY SUBTERRANEAN TERMITES & THEIR CONTROL.

 U.S.D.A.F.B. 1911. APRIL 1949. FROM (N. C. STATE COLLEGE, ENTOMOLOGY EXTENSION)
- 11. DECAY & TERMITE DAMAGE IN HOUSES. U.S.D.A.F.B. 1993. MAY 1951. FROM (N. C. STATE COLLEGE, ENTOMOLOGY EXTENSION)
- 12. Control of Non-subterranean Termites. U.S.D.A.F.B. 2018. September 1950 From (N. C. State College, Entomology Extension)
- 13. PEST CONTROL. FROM TRADE MAGAZINES, 1900 EUCLID BLDG., CLEVELAND 15, OHIO (1 YR. \$5.00, 2 YR'S. \$8.00)
- 14. CONTROL OF RATS AND MICE, DENNIS CHITTY AND H. N. SOUTHERN, 3 VOLUMES, 1954.
 FROM OXFORD UNIVERSITY PRESS, INC., 114 FIFTH AVE., New York 11, N.Y.
 (\$16.80)

The NCSU Arboretum Department of Horticultural Science Box 7609 Raleigh, North Carolina 27695-7609

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| No. Tam unable | \$30 per person. to attend, but n | ru contribution of |
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