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WEST AND CENTRAL AFRICA
SORGHUM RESEARCH NETWORK
(WECASORN)
SUMMARY OF ACHIEVEMENTS

633.1 WEC

(ALSO AVAILABLE IN SLIDES)

633.1 WEC

## WECASORN HISTORY

- FIRST REGIONAL WORKSHOP 27-30 NOVEMBER 1984 IDEA OF NETWORK APPROVED
- 1985 WECASORN BECAME OPERATIONAL STEERING COMMITTEE FORMED
- SEPTEMBER 1, 1986. PHASE II OF SAFGRAD STARTED FUNDING OF WECASORN 1.6 MILLION DOLLARS BY USAID
- ICRISAT PROVIDES COORDINATOR
  SEPTEMBER 1986

### MEMBER COUNTRIES

- 1. BURKINA FASO
- 2. CAMEROON
- 3. MALI
- 4. NIGER
- 5. NIGERIA
- 6. COTE D'IVOIRE
- 7. GHANA
- 8. BENIN
- 9. CENTRAL AFRICAN REPUBLIC
- 10. CHAD
- 11. GAMBIA
- 12. GUINEA

- 13. GUINEA BISSAU
- 14. MAURITANIA
- 15. SENEGAL
- 16. SIERRA LEONE
- 17. TOGO

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### WECASORN OBJECTIVES

- 1. CONTRIBUTE TO INCREASE IN SORGHUM PRODUCTION
- 2. STRENGTHEN NATIONAL AGRICULTURAL RESEARCH SYSTEMS (NARS)
- 3. DEVELOP IMPROVED SORGHUM VARIETIES AND HYBRIDS
- 4. DEVELOP IMPROVED AGRONOMIC/MANAGEMENT PRACTICES
- 5. REGIONAL TESTING OF IMPROVED GENOTYPES
- 6. DEVELOP AGRICULTURAL RESEARCH MANPOWER AT ALL LEVELS IN NARS
- 7. ORGANIZE WORKSHOPS AND EXCHANGE VISITS

# WECASORN MAJOR ACTIVITIES

- 1. STEERING COMMITTEE MEETINGS
- 2. TRAINING
- 3. REGIONAL TRIALS/NURSERIES
- 4. RESEARCH PROJECTS
- 5. MONITORING TOURS
- 6. REGIONAL WORKSHOPS
- 7. EXCHANGE VISITS TO NARS

# WECASORN ACHIEVEMENTS: 1986-1992

### 1. POLICY

# MAJOR DECISIONS TAKEN AT ELEVEN STEERING COMMITTEE MEETINGS

### COMMITTEE MEMBERS

- MALI (CHAIRMAN)
- BURKINA FASO
- CAMEROON
- SENEGAL
- NIGERIA
- CHAD

### ACHIEVEMENTS: 1986-1992

### 2. TRAINING

- STRIGA CONTROL 1987
- AGRONOMY/ON-FARM TESTING 1989
- PLANT PROTECTION 1991

### 3. REGIONAL TRIALS

- WEST AFRICAN SORGHUM VARIETY ADAPTATION
  TRIAL EARLY DURATION (WASVAT-E) 1986-1992
- WASVAT MEDIUM DURATION 1986-1992
- WEST AFRICAN SORGHUM HYBRID ADAPTATION TRIAL (WASHAT) - 1986-1992
- WEST AFRICAN SORGHUM DISEASE RESISTANCE NURSERY (WASDRN) - 1987-1992
- WEST AFRICAN SORGHUH STRIGA TRIAL (WASST) 1988-1992

### ACHIEVEMENTS: 1986-1992

### 6. REGIONAL WORKSHOPS

- 1988: IN CAMEROON, 52 PARTICIPANTS FROM 14 COUNTRIES
- 1991: IN NIGER, 20 PARTICIPANTS FROM 16 COUNTRIES

### 7. EXCHANGE VISITS

- 1989: REPRESENTATIVE FROM MALI VISITED SENEGAL AND GAMBIA
- 1990: REPRESENTATIVE FROM NIGERIA VISITED GHANA
- 1990: REPRESENTATIVE FROM BURKINA FASO VISITED BENIN

### ACHIEVEMENTS: 1986-1992

### 4. RESEARCH PROJECTS IN LEAD NARS

- ANTHRACNOSE IN BURKINA FASO
- LONG SMUT IN NIGER
- HEAD BUGS IN MALI
- STRIGA IN CAMEROON
- WHEAT-SORGHUM FLOUR IN NIGERIA

### 5. MONITORING TOURS

- 1986 (1): SIX PARTICIPANTS VISITED CAMEROON, GAMBIA, NIGERIA, SENEGAL
- 1986 (2). FIVE PARTICIPANTS VISITED BURKINA FASO
- 1987 : ELEVEN PARTICIPANTS VISITED BURKINA FASO
- 1988 : SEVEN PARTICIPANTS VISITED MALI, BURKINA FASO, NIGER
- 1991 : THREE PARTICIPANTS VISITED MALI

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

### 1. VARIETY AND HYBRID TRIALS

- IN 1986 ALL ENTRIES IN WASVAT-E, WASVAT-M, WASHAT FROM ICRISAT
- BY 1991, 73% FROM NARS FOR WASVAT-E 53% FROM NARS FOR WASVAT-M 11% FROM NARS FOR WASHAT

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

# 1. VARIETY AND HYBRID TRIALS (CONTINUED)

- 206 VARIETIES TESTED IN WASVAT-E AND WASVAT-M 1986-1992
- 35 (=17%) OF THEM IN VARIOUS LEVELS OF USE IN NARS
- 17 OF THE 35 FROM NARS, REMAINING 18 FROM ICRISAT
- 13 (37%) IN FARMERS FIELDS IN NARS
- 6 (17%) IN ON-STATION IN 3 NARS
- 1 (3%) IN DEMONSTRATION IN 1 NARS
- 1 (3%) IN MULTILOCATION IN 1 NARS
- 8 (23%) IN PRE-RELEASE IN 5 NARS
- 1 (3%) RELEASED IN 1 NARS
- 20 (57% IN CROSSES IN 4 NARS
- 1 (3%) AS LOCAL DRINK IN 3 NARS
- 2 (6%) AS SOLID FOOD IN 2 NARS

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

- 2. DISEASE NURSERY AND STRIGA TRIAL
- 15 VARIETIES RESISTANT TO LEAF ANTHRACNOSE
- 35 VARIETIES RESISTANT TO GRAY LEAF SPOT
- 16 VARIETIES SUPPORTED LOW STRIGA POPULATION

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

### 3. PRE-RELEASED VARIETIES

CSM 388 (FROM MALI) IN GUINEA

CE 180-33 (FROM SENEGAL) IN SENEGAL

MALISOR 84-1 (FROM MALI) IN SENEGAL

ICSV 1063 BF (FROM ICRISAT) IN COTE D'IVOIRE AND MALI

ICSV 401 IN (FROM ICRISAT) IN MALI

ICSV 111 IN (FROM ICRISAT) IN GHANA

ICSV 16-5 BF (FROM ICRISAT) IN GHANA

### RELEASED VARIETY

F2-20 (FROM SENEGAL) IN SENEGAL

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

5. DISEASE RESISTANT VARIETIES

84 IN 848 (FROM ICRISAT) - GRAY LEAF SPOT
TEST FARMERS' FIELDS IN GUINEA

IS 3443 (ICRISAT GERMPLASM) - LEAF ANTHRACNOSE TEST FARMERS' FIELDS IN GUINEA

BF 83-3/48-2-1 (FROM BURKINA FASO) - GRAY LEAF SPOT TEST FARMERS' FIELDS IN GUINEA

use of materials st some level in NARS

#### RESEARCH PROJECTS

### SOME SIGNIFICANT RESULTS

- 1. ANTHRACNOSE BURKINA FASO
  - 44 LOCAL VARIETIES RESISTANT TO LEAF, STEM AND GRAIN INFECTION
  - 19 LOCAL AND THREE IMPROVED VARIETIES WITH RATE REDUCING-LIKE RESISTANCE
- 2. LONG SMUT NIGER
  - LATE MATURING VARIETIES MORE SUSCEPTIBLE
  - SPORIDIA MORE EFFECTIVE THAN TELIOSPORES FOR ARTIFICIAL INOCULATION
- 3. HEAD BUGS MALI
  - POPULATION DYNAMICS; TWO PEAK PERIODS IN LATE SEPTEMBER AND OCTOBER
  - EARLY PLANTING = NO ATTACK. TWO GENERATIONS DEVELOPED ON LATE PLANTING SORGHUMS
  - NINE VARIETIES RESISTANT AFTER ARTIFICIAL INOCULATION

### RESEARCH PROJECTS

### SOME SIGNIFICANT RESULTS

- 4. WHEAT-SORGHUM FLOUR NIGERIA
  - 50% SORGHUM FOR BREAD, 60% FOR CONFECTIONERY
  - ADDITION OF 0.5% CASSAVA FLOUR = MORE SPONGY BREAD
  - WHEAT-SORGHUM BREAD MORE POPULAR AMONG LOW INCOME GROUPS
- 5. STRIGA CAMEROON
  - 14 PROMISING LINES IDENTIFIED AFTER SCREENING IN SICK PLOTS

# TECHNOLOGY TRANSFER - THE QUESTION OF IMPACT

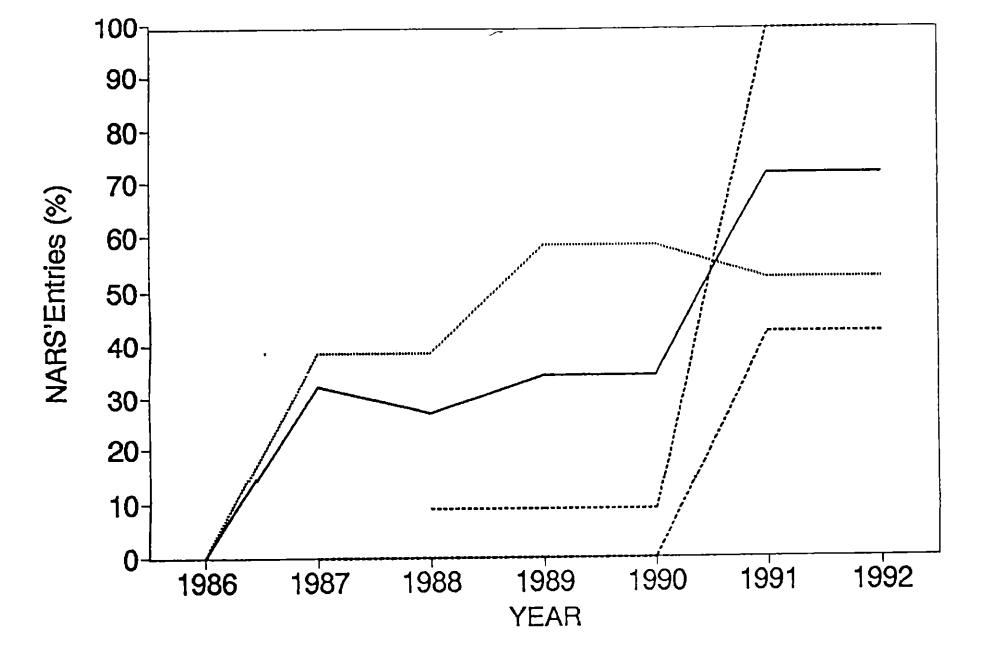
### 6. VARIETIES WHICH SUPPORTED LOW STRIGA COUNTS

CS 95 (FROM CAMEROON) - TESTS FARMERS' FIELDS IN SENEGAL, IN CROSSES IN TOGO

CS 54 (FROM CAMEROON) - IN CROSSES IN SENEGAL AND TOGO

ICSV 1079 BF (FROM ICRISAT) - IN CROSSES IN MALI AND TOGO

ICSV 1078 BF (FROM ICRISAT) - IN CROSSES IN MALI AND TOGO



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Figure 1: Test entries from NARS in regional trials.

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Department of Rural Economy and Agriculture (DREA)

African Union Specialized Technical Office on Research and Development

1986

# WEST AND CENTRAL AFRICA SORGHUM RESEARCH NETWORK (WECASORN) SUMMARY OF ACHIEVEMENTS

**OUA/CSTR-SAFGRAD** 

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