

ALTERNATIVE SYSTEMS FOR CONSERVATION COMPLIANCE
PROVISIONS OF THE FOOD SECURITY ACT OF 1985

Alternative Conservation Systems are to be used where soils, economic conditions, social conditions or religious beliefs, or farmer managerial ability prevent the establishment of Resource Management Systems or Basic Conservation Systems. The State Conservationist has determined that Alternative Conservation Systems may be installed for conservation compliance of the Food Security Act of 1985. The use of these systems will be in effect through 1995.

Alternative Conservation Systems are based on current technology for controlling erosion with consideration given to the cost of attaining added increments of erosion control as the system's performance approaches a point of nondegradation of the soil resources. They must achieve a substantial reduction in existing soil loss levels or potential soil losses, but at the same time, be cost effective for the given situation.

Quality Criteria

Quality criteria for Alternative Conservation Systems is lower than for Resource Management Systems or Basic Conservation Systems due to the circumstance where they are to be used. The objective will always be to achieve a significant reduction in existing soil loss levels, while being cost effective.

The following pages outline the systems and practices needed for compliance.

Alternative Conservation Systems for
MLRA - 122, 123, 125, 128, 129, 130

EI 8 to 15

- * (1) Cover crops and contour farming.
- * (2) Contour stripcropping one-third in grass buffer strips with cover crop.
- * (3) Two-year crop with cover with contour farming, two years grass.
- * (4) Two-year crop, five-year grass.
 - (5) Corn (Grain) - Conservation tillage.
 - (6) Corn (Grain) - Conventional Tillage - Contour farming - Crop residue use.
 - (7) Corn (Grain) - Soybean rotation - Conservation tillage.
 - (8) Soybean conservation tillage.
 - (9) Soybean conventional tillage - Contour farming - Crop residue use.
 - (10) Soybean/wheat double crop conservation tillage.
 - (11) Tobacco with cover crop - Contour farming.
 - (12) Corn (Silage) - No-till with cover crop.
 - (13) Continuous cotton with stalks shredded after harvest and residue left on surface to March 1, with contour farming.
 - (14) Continuous cotton with cover crop (early seeded).
 - (15) Continuous cotton - No-till.
 - (16) Cotton - Crop residue use, contour farming. Soybeans - Crop residue use, contour farming.
 - (17) Continuous tobacco with early seeded cover crop.
 - (18) Single crop greenbeans with an early seeded winter cover using cross-slope farming.

(19) Any other system with a "CP" of .210 or less.

***Specialty Crops**

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON SITE INVESTIGATION
CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Terraces
- (3) Diversions
- (4) Water and Sediment Control Basin
- (5) Field Border
- (6) Filter Strip

Alternative Conservation Systems for

MLRA 133, 134
EI 8 to 15

- (1) Continuous cotton with stalks shredded after harvest and residue left on surface to March 1, with contour farming.
- (2) Continuous cotton with cover crop (early seeded).
- (3) Continuous cotton - no-till.
- (4) Continuous soybeans - Drilled residue left on the surface until April 1.
- (5) Continuous soybeans - no-till.
- (6) Cotton - Crop residue use, contour farming, rotated with soybeans - Crop residue use, contour farming.
- (7) Corn, wheat/soybean - conservation tillage.
- (8) Corn, conventional tillage, stalks shredded, crop residue use.
- (9) Tobacco with winter cover, early seeded, cross-slope farming (limited to five acres or less per plan).
- (10) Sweet corn, rotated with purple hull peas with a cover crop.
- (11) Cotton - no-till, rotated with purple hull pease with a cover crop.
- (12) Truck crop - two year - with cover crop - sod three years.
- (13) Continuous cotton; cross slope farming; parallel pipe outlet terraces or parallel terraces.
- (14) Any other system with a CP of .210 or less.

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON SITE INVESTIGATION CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Terraces
- (3) Diversions
- (4) Water and Sediment Control Basin
- (5) Field Border
- (6) Filter Strip

THE SUBSTITUTION OF HIGHER RESIDUE CROPS FOR COTTON IN THE ABOVE ALTERNATIVE CONSERVATION SYSTEMS IS PERMISSIBLE.

Alternative Conservation Systems for

MLRA - 122, 123, 125, 128, 129, 130

EI >15 to 40

- * (1) Contour stripcropping one-half in grass buffer strips with cover crop.
- * (2) Two-year crop with cover - ten-year grass.
- * (3) Two-year crop with cover with contour farming - five-year grass.
- (4) Corn (grain) conventional tillage - contour farming crop residue use.
- (5) Corn (grain) no-till.
- (6) Corn (silage) winter cover, contour farming - no-till.
- (7) Corn (grain) - soybean rotation, contour farming, crop residue use.
- (8) Soybean - No-till.
- (9) Soybean/wheat double crop - conservation tillage.
- (10) Continuous cotton - Contour farming - Cover crops early seeded.
- (11) Continuous cotton - Stalks shredded after harvest left on the surface to March 1. Contour farming - terraces.
- (12) Continuous cotton - Cover crop - Early seeded sod buffer - Contour stripcropping.
- (13) Continuous cotton - No-till with terraces.
- (14) Cotton - Three-year meadow.
- (15) Cotton no-till - Contour farming, soybean drilled, no-till (high yields).

- (16) Continuous cotton - No-till planted into an early seeded small grain winter cover.
- (17) Continuous cotton - No-till planted into an early seeded small grain winter cover, cultivated twice.
- (18) Continuous cotton - Ridge-till with aerial seeded small grain cover crop.
- (19) Continuous cotton - No-till planted, stalks shredded, cross slope farming.
- (20) Continuous corn for silage, conservation tillage with early seeded cover crop.
- (21) Tobacco with winter cover, early seeded, cross-slope farming (Limited to five acres or less per plan).
- (22) Tobacco with an early seeded winter cover in a sod-based rotation of no more than three years crop and an equal or greater number of years grass (limited to five acres or less per plan).
- (23) Two years single crop greenbeans with early seeded winter cover using cross-slope farming and two years of grass.
- (24) Field stripcropping of single crop greenbeans with early seeded winter cover. Half the acreage in crop and half in grass.
- (25) Any other system with a "CP" of .110 or less. Low residue crops with a "CP" of .110 or less with RUSLE must have corresponding practices equal to or greater erosion control than listed ACS's.

* Specialty Crops

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON SITE INVESTIGATION, CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Terraces
- (3) Diversions
- (4) Water and Sediment Control Basin
- (5) Field Border
- (6) Filter Strip

Alternative Conservation Systems for

MLRA - 133 and 134
EI >15 to 40

- 1/ (1) Continuous cotton - Contour farming - Cover crops early seeded.
- 1/ (2) Continuous cotton - Stalks shredded after harvest left on the surface to March 1. Contour farming - terraces.
- 1/ (3) Continuous cotton - Cover crop - Early seeded sod buffer - Contour stripcropping.
- 1/ (4) Continuous cotton - No-till with terraces.
- (5) Cotton - Three-year meadow.
- (6) Wheat/soybean double crop - Drilled, no-till.
- 1/ (7) Continuous soybeans - Sod buffer contour stripcropping.
- 1/ (8) Continuous soybeans - Contour farming, terraces.
- 1/ (9) Cotton no-till - Contour farming, soybean drilled, no-till (high yields).
- 1/ (10) Continuous corn - Contour farming, terraces.
- 1/ (11) Continuous corn - Contour farming, sod buffer stripcropping.
- (12) Continuous corn - No-till.
- (13) Corn - Conservation tillage, wheat/soybeans drilled, no-till.
- (14) Wheat/soybean double crop - Conservation tillage.
- (15) Continuous cotton - No-till planted into an early seeded small grain winter cover.
- (16) Continuous cotton - No-till planted into an early seeded small grain winter cover, cultivated twice with a no-till cultivator for weed problems that cannot be handled chemically.
- 1/ (17) Continuous cotton - Ridge-till with aerial seeded small grain cover crop.
- 1/ (18) Continuous grain sorghum - Ridge-till with cover crop (grazed). Grain sorghum - No-till planted on ridge into chemically killed winter cover.

- 1/ (19) Continuous cotton - No-till planted, stalks shredded.
- (20) Tobacco - Two (2) years with cover crop - Sod four (4) years.
- (21) Tobacco - Two (2) years with cover crop - Sod six (6) years.
- (22) Specialty Crops - Two (2) years with cover crop, sod six (6) years.
- 1/ (23) Specialty crops - Two (2) years with sod buffer strip cropping, sod three (3) years.
- (24) Cotton, no-till - Soybeans, no-till, drilled/wheat, conventional tillage - Cotton, no-till.
- (25) Tobacco with winter cover, early seeded, cross-slope farming (limited to five acres or less per plan).
- (26) Continuous cotton with early seeded cover crops (no-till by September 30) and cross-slope farming.
- (27) Any other system with a "CP" of .110 or less. Low residue crops with EI of .110 or less must have corresponding practices equal to or greater erosion control than listed ACS's.

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON SITE INVESTIGATION CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Terraces
- (3) Diversions
- (4) Water and Sediment Control Basin
- (5) Field Border
- (6) Filter Strip

THE SUBSTITUTION OF HIGHER RESIDUE CROPS FOR COTTON IS PERMISSIBLE.

1/ REQUIRES ON-SITE TECHNICAL DETERMINATION.

Alternative Conservation Systems for

MLRA - 122, 123, 125, 128, 129, 130

EI Over 40
Currently Cropped

- (1) Corn - Conventional one year, wheat or small grain/red clover two years.
- (2) Corn - No-till.
- (3) Tomatoes with cover crop - Corn no-till with sod buffer strips.
- (4) Tomatoes with cover crop one year, sod two years.
- (5) Tomatoes with cover crop two years, sod four years.
- (6) Tobacco with winter cover, early seeded, cross-slope farming (limited to five acres or less per plan).
- (7) Tobacco with an early seeded winter cover in a sod-based rotation of no more than three years crop and an equal or greater number of years grass (limited to five acres or less per plan).
- (8) Three years single crop greenbeans with an early seeded winter cover using cross-slope farming followed by five years grass.
- (9) Any other system with maximum "CP" of .105 or less. No-till low residue crops with a "CP" less than .105 will require winter cover.

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON SITE INVESTIGATION, CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Diversions
- (3) Water and Sediment Control Basin
- (4) Field Border
- (5) Filter Strip

Alternative Conservation Systems for
MLRA - 133, 134

EI Over 40
Currently Cropped

- (1) Corn - No-till.
- (2) Soybeans Drilled - No-till with cover crop or wheat double crop.
- (3) Wheat - Residue left.
- (4) Cotton - No-till into a chemically killed, early seeded small grain winter cover crop.
- (5) Cotton - With five years sod rotation.
- (6) Cotton - No-till (one year) rotation - Double crop no-till soybeans with wheat.
- 1/ (7) Cotton - Conventional early seeded cover crop - Contour sod buffer strips and/or gradient terraces (steep back-vegetated, same as with buffer strip) and/or diversion (vegetated) or combination of all of the above.
- (8) Corn - No-till, soybeans drilled - No-till with cover crop or wheat double crop.
- (9) Convert to Grass.
- (10) Convert to Trees.
- (11) One year of no-till silage, residue removed with a no-till winter cover followed by one year of no-till corn planted into killed winter cover and stalks shredded after harvest.
- (12) Three years of no-till silage, residue removed with no-till winter cover, residue removed for silage or hay followed by a minimum of three years of sod.
- (13) One year of conventional tilled corn silage, residue removed with five years sod rotation.
- (14) Tobacco one year, with cover crop, sod three years.
- (15) Specialty crops one year with cover crop, sod four years.
- (16) Tobacco with winter cover, early seeded, cross-slope farming (limited to five acres or less per plan).

- (17) Continuous Corn/Milo - Conservation Tillage (30 percent ground cover from crop residue after planting).
- (18) Corn/Milo - Conservation tillage, one year rotated with a no-till double crop of drilled soybeans and wheat.
- (19) Corn/Milo - Conservation tillage, one year rotated with a double crop of no-till soybeans and minimum tilled wheat.
- (20) Any other system with a "CP" of .100 or less. Low residue crops no-tilled with a "CP" of .100 or less will require a cover crop or high residue double crop.

NOTE: WATER DISPOSAL SYSTEM - DETERMINED BY ON-SITE INVESTIGATION, CONSISTING OF ONE OR MORE OF THE FOLLOWING PRACTICES:

- (1) Grassed Waterway or Outlet
- (2) Diversions
- (3) Water and Sediment Control Basin
- (4) Field Border
- (5) Filter Strip

THE SUBSTITUTION OF HIGHER RESIDUE CROPS FOR COTTON IN THE ABOVE ALTERNATIVE CONSERVATION SYSTEMS IS PERMISSIBLE.

1/REQUIRES ON-SITE TECHNICAL DETERMINATION.

Alternative Conservation Systems for

MLRA - 133, 134

EI Over 40

All Class 6 and 7 Soil Map Units
Class 4, "D" Slopes and Steeper
(Washboard Soils - Memphis, Loring, and
Grenada, Principally)

- (1) Cotton or soybean, reduced tillage in 1993, cover crop planted in early fall of 1993*, aerial seeded or broadcast at first leaf drop. No-till planted crop into killed cover crop in 1994.
- (2) Cotton, no-tilled into shredded stalks in 1993, cover crop, early seeded in fall of 1993*. In 1994, crop planted no-till into killed cover crop.
- (3) Cotton or soybean no-till planted in 1993. Early seeded cover crop planted in fall of 1993*. No-till planted in 1994. Ephemeral gully areas seeded to perennial grass in 1994.
- (4) Cotton or soybean, no-till on Class 4, "D" or steeper slopes, or class 6 soil mapping units. Early seeded cover crops. Class 7 mapping units established to a perennial grass cover. Diversions will be constructed to protect the cropped portions of the field. 1/

* If planned early enough in 1992, a cover crop will be required.

1/REQUIRES ON-SITE TECHNICAL DETERMINATION.