Effectiveness Summary | **FDACS Vegetable and Agronomic Crop BMP Manual** | Revised mt
NRCS CPPE Evaluation | Bill. Bartnick | **1/20/15**
Print Date 1/20/2015 15:29 | Mike Thomas

NRCS CP	Name	Erosion	Water Conservation	Runoff Quantity	GW Pesticides	GW Nutrient	GW Other	SW Pesticide	SW Nutrient	SW Other	$ Profitability	$ Profitability (2004)	Sum
309	Agrichemical Handling Facility (old 702)	N/A	N/A	N/A	4.0	4.0	N/A	5.0	5.0	N/A	1.7	1.0	19.7
310	Bedding	1.0	0.0	3.0	0.0	1.0	0.0	1.0	(1.0)	1.0	1.7	1.0	19.7
319	On-Farm Secondary Containment Facility	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0		19.7
320	Irrigation Canal or Lateral	0.0	0.8	0.7	0.0	0.0	0.0	0.0	0.0	(2.0)	2.5	1.5	19.7
324	Chiseling and Subsoiling (Deep Tillage)	2.8	0.0	2.0	(2.0)	(2.0)	1.5	3.0	1.0		1.7	1.0	7.9
327	Conservation Cover Crop	3.0	2.3	3.3	3.0	3.0	2.0	2.0	3.0	3.0	2.5	1.5	27.2
330	Contour farming	4.0	0.8	2.7	1.0	1.0	1.0	2.0	2.0	3.0	2.5	1.5	21.4
350	Sediment Basin	4.0	0.0	3.7	(2.0)	0.0	(1.3)	3.0	3.0	1.7	0.0	0.0	12.0
351	Well Decommisioning	0.0	3.0	0.0	0.0	4.0	0.0	0.0	0.0	3.0	0.0	0.0	10.0
374	Farmstead Energy Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0		0.0
386	Field Border	3.3	(1.0)	2.7	1.0	1.0	1.0	3.0	3.0	1.3	0.8	0.5	16.2
388	Irrigation Field Ditch	0.0	0.8	0.7	0.0	0.0	0.0	0.0	0.0	(2.0)	2.5	1.5	1.9
390	Herbacious Riparian Buffer	3.0	2.5	3.7	2.0	5.0	1.5	3.0	5.0	2.5	0.0	0.0	28.2
391	Riparian Forest Buffer	3.0	2.0	4.3	2.0	5.0	1.5	4.0	5.0	3.0	1.7	1.0	32.5
393	Filter Strip	3.5	(1.0)	4.0	1.0	1.0	1.0	3.0	3.0	3.3	2.5	1.5	21.3
412	Grassed Waterway	3.3	0.0	3.0	1.0	1.0	1.0	3.0	2.0	3.0	2.5	1.5	19.8
430	Irrigation Pipeline	2.0	2.3	1.0	0.0	0.0	0.0	0.0	1.0	0.0	3.3	2.0	19.7
436	Irrigation Reservoir	0.0	0.5	2.0	1.0	(1.0)	1.0	1.0	0.0	1.0	3.3	2.0	19.7
441	Irrigation System - Microirrigation	3.3	4.7	4.0	1.0	4.0	0.0	1.0	4.0	1.0	3.3	2.0	26.3
442	Irrigation Sprinkler System	3.0	2.3	3.0	1.0	1.0	1.0	1.0	2.0	1.0	3.3	2.0	18.6
443	Irrigation Systems, Surface and Subsurfac	0.0	2.0	0.3	(2.0)	1.0	(2.0)	(3.0)	1.0	(2.0)	3.3	2.0	0.7
447	Irrigation Tailwater Recovery	0.0	1.5	1.7	1.0	(1.0)	1.0	3.0	1.0	1.7	3.3	2.0	13.2
449	Irrigation Water Management	5.0	2.8	3.5	4.0	4.0	2.0	3.0	4.0	2.0	3.3	2.0	33.6
462	Precision Land Forming	2.0	2.0	2.0	1.0	0.0	0.0	1.0	0.0	0.0	2.5	1.5	19.7
464	Irrigation Land Leveling	3.0	2.0	1.3	2.0	2.0	1.5	1.0	1.0	1.0	2.5	1.5	19.7
554	Agricultural Drainage Management	3.2	0.0	1.3	1.0	(1.0)	1.0	3.0	2.0	3.0	2.5	1.5	16.0
557	Row Arrangement	3.0	1.8	2.3	1.0	1.0	1.0	2.0	(1.0)	2.0	2.5	1.5	17.1
560	Access Road	5.0	N/A	(1.0)	N/A	N/A	N/A	N/A	N/A	2.0	2.5	1.5	10.0
561	Heavy Use Protection	3.0	0.0	2.0	N/A	3.0	3.0	N/A	3.0	2.5	3.3	2.0	19.8
570	Storm Water Runoff Control/FL-ECIM	3.0	(1.0)	3.7	N/A	N/A	N/A	N/A	2.0	3.0	2.5	1.5	13.2
578	Stream Crossing	4.0	0.0	4.5	0.0	0.0	0.0	0.0	(2.0)	4.0	0.0		10.5
585	Contour strip cropping	3.3	0.3	2.3	0.0	1.0	0.0	0.0	3.0	4.0	2.5	1.5	18.0
587	Structure for Water Control	1.0	0.7	2.0	0.0	1.0	1.0	2.0	2.0	1.7	3.3	2.0	14.7
590	Nutrient Management	N/A	N/A	N/A	2.0	5.0	1.7	2.0	5.0	2.0	3.3	2.0	21.0
595	Integrated Pest Management	0.0	2.0	N/A	5.0	0.0	0.0	5.0	0.0	2.0	3.3	2.0	17.3
603	Herbaceous Wind Barrier (formerly 442A?)	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	2.5	1.5	9.0
607	Surface Drainage Field Ditch	2.0	1.0	1.0	0.0	1.0	0.0	(3.0)	(1.0)	(1.7)	3.3	2.0	2.7
608	Surface Drainage-Main or Lateral	2.0	1.0	1.0	0.0	1.0	0.0	(3.0)	(1.0)	(1.0)	3.3	2.0	5.3
642	Water Well	N/A	(1.0)	1.0	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.0	0.0
659	Wetland Enhancement	3.0	N/A	2.0	1.0	1.0	N/A	1.0	3.0	2.0	2.5	1.5	15.5
755	Well Plugging	N/A	3.0	N/A	N/A	4.0	3.0	N/A	N/A	3.0	2.5	1.5	15.5
													0.0
41													
	Average of Practices	3.0	1.4	2.2	1.3	1.8	1.2	1.8	2.0	1.7	2.7	1.6	N/A
	Practices with positive effect	28	23	33	20	24	20	25	25	30	34	34	N/A
	Average of practices with positive effect	3.0	1.8	2.3	1.8	2.3	1.5	2.4	2.7	2.3	2.7	1.6	N/A
NON-DESIGN	Evaluation effectiveness estimate	39%	24%	31%	23%	31%	20%	31%	35%	30%	N/A		

2010 CPPE Matrix

The CPPE matrix assumes that the practice is not part of a conservation system and that each practice is applied independently of others.

70% Geometric addition factor r, where the effective number of practices is (1-r^n)/(1-r), and n = 1/2 the total number of practices with positive effect.

4% Conservation effect conversion factor 4% times average effectiveness rating,

Reduction assumes 1/2 of positive practices are used and are geometrically additive. Not Suitable for Design.

NOT FOR DESIGN

The CPPE matrix assumes that the practice is not part of a conservation system and that each practice is applied independently of others.

Note, In this BMP manual evaluation, N/A, Facilitating, and Insignificant are scored Zero(0). Only long-term effects are considered.

Averages derived from non-zero values only.

Erosion = Gully, Ephemeral, Irrigation induced, Sheet & rill, Shoreline, Streambank, Roads and Construction

Water Conservation = Aquifer overdraft, inefficient use of irrigation, Excessive seepage and Insufficient flows.

Runoff Quantity = Excessive runoff/flooding, Reduced capacity of conveyances, reduced storage capactity of water bodies due to sediments.

GW Other = avg (salinity, heavy metals, pathogens). SW Other = avg(salinity, turbidity, heavy metals, pathogens)

The values in the Profitability (K) column are 1.67x the 2004 CPPE data, which rates value 1-3 in hidden column (M).

CP570 is replaced in FL by the FDEP Erosion Control Inspector's Manual.

The conservation effect may be classified in one of the following forms, followed by additional information for clarity:

Definition of Value	Value in SmarTech CPPE
Substantial Decrease	5
Moderate to Substantial Decrease	4
Moderate Decrease	3
Slight to Substantial Decrease	3
Slight to Moderate Decrease	2
Slight Decrease	1
Not Applicable	0
No Effect	0
Slight Increase	-1
Slight to Moderate Increase	-2
Moderate Increase	-3
Slight to Substantial Increase	-3
Moderate to Substantial Increase	-4
Substantial Increase	-5

A decrease (+) or increase (-) in the concern indicates the effect the installed practice has on the resource concern. For example, a practice may moderately decrease (+3) an erosion concern and slightly increase (-1) a water quality concern.