

Proposal for Beta Data “Digester”

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Need

- The extracted Scenario Builder output was made up of 366 files, amounting to 1.75 GB worth of Excel spreadsheets.
 - 2 spreadsheets pertain to nutrient spread.
 - 400 counties
 - All calibration years from 1984-2013.
 - clipped Delmarva counties to ground truth the outputs
 - '92, '00 and avg '10-'13 summarized to see trends at milestone years for Ag Census and NM planning

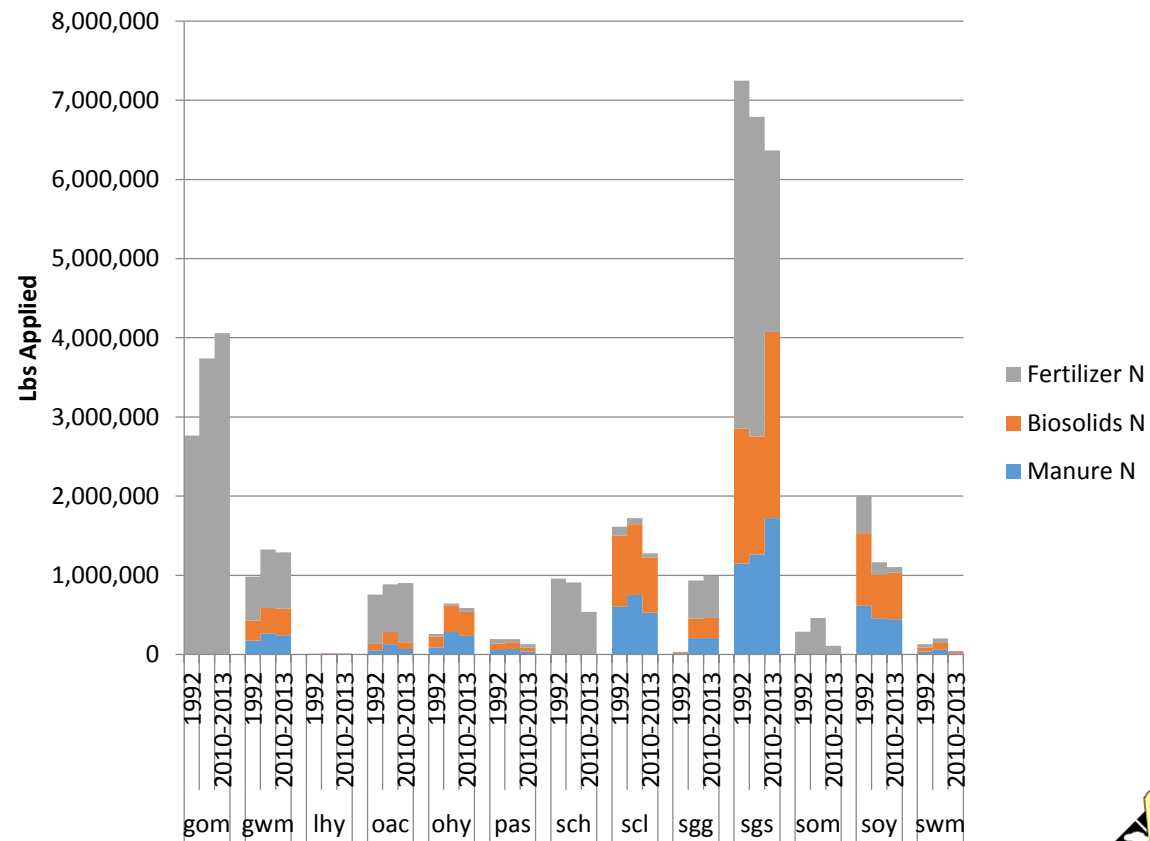
BaseCondition	FIPS	CountyName	StateAbbrevi	LoadSourceShort	Acres	NCropGoal	ManureNLbsAp	BiosolidsNLbs	FertilizerNLbsAppl	DirectDepositMan	UrbanFertilizerNLbs	TotalNApp	TotalNApp	TotalNApp
Name			ation	Name			plied	Applied	ied	ureNLbsApplied	Applied	TotalNApp	erAcre	ropGoal
1984 10001 Kent			DE	gom	27,183.40	4,129,526.51	0.00	0.00	4,254,099.88	0.00	0.00	4,254,099.88	156.50	1.03
1984 10001 Kent			DE	gwm	7,229.67	1,098,284.76	327,649.05	0.00	955,655.09	0.00	0.00	1,283,304.14	177.51	1.17
1984 10001 Kent			DE	lhy	2,372.60	7,767.90	0.00	0.00	1,562.21	0.00	0.00	1,562.21	0.66	0.20
1984 10001 Kent			DE	mch	615.18	33,284.63	0.00	0.00	0.00	0.00	33,284.63	33,284.63	54.11	1.00
1984 10001 Kent			DE	mtg	6,480.24	350,618.63	0.00	0.00	0.00	0.00	350,618.63	350,618.63	54.11	1.00
1984 10001 Kent			DE	nch	2,022.49	109,428.64	0.00	0.00	0.00	0.00	109,428.64	109,428.64	54.11	1.00
1984 10001 Kent			DE	ntg	32,623.77	1,765,135.38	0.00	0.00	0.00	0.00	1,765,135.34	1,765,135.34	54.11	1.00
1984 10001 Kent			DE	oac	10,182.14	435,117.41	35,045.03	0.00	407,688.26	0.00	0.00	442,733.29	43.48	1.02
1984 10001 Kent			DE	ohy	4,471.76	223,587.90	111,922.30	0.00	154,680.34	0.00	0.00	266,602.64	59.62	1.19
1984 10001 Kent			DE	pas	6,687.80	100,317.00	0.00	0.00	48,252.38	2,162,852.39	0.00	48,252.38	7.21	0.48
1984 10001 Kent			DE	sch	7,291.97	948,177.58	0.00	0.00	929,371.88	0.00	0.00	929,371.88	127.45	0.98
1984 10001 Kent			DE	scl	14,531.66	953,765.15	947,087.62	0.00	426,801.46	0.00	0.00	1,373,889.08	94.54	1.44
1984 10001 Kent			DE	sgg	3,441.11	360,622.51	131,245.93	0.00	301,096.86	0.00	0.00	432,342.78	125.64	1.20



DDA Effort

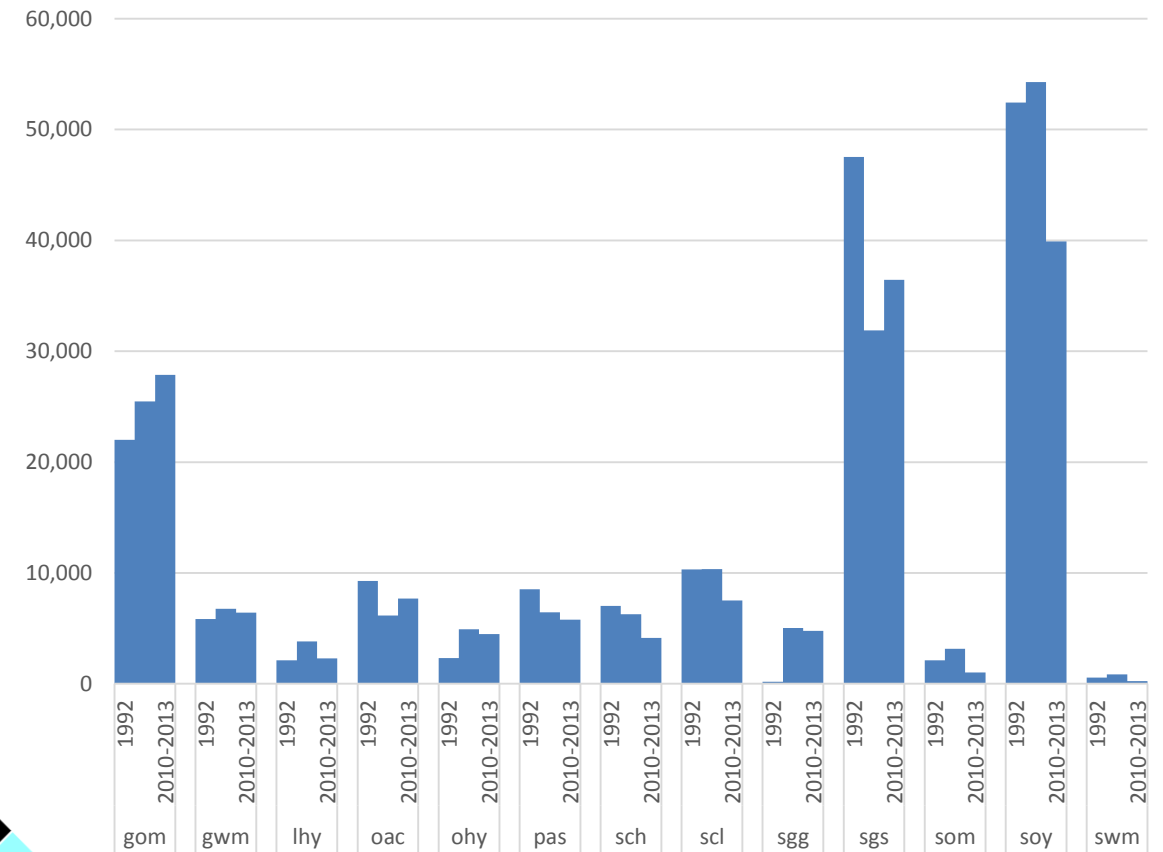
Nitrogen Application per Land Use

Kent, DE



Acres per Land Use

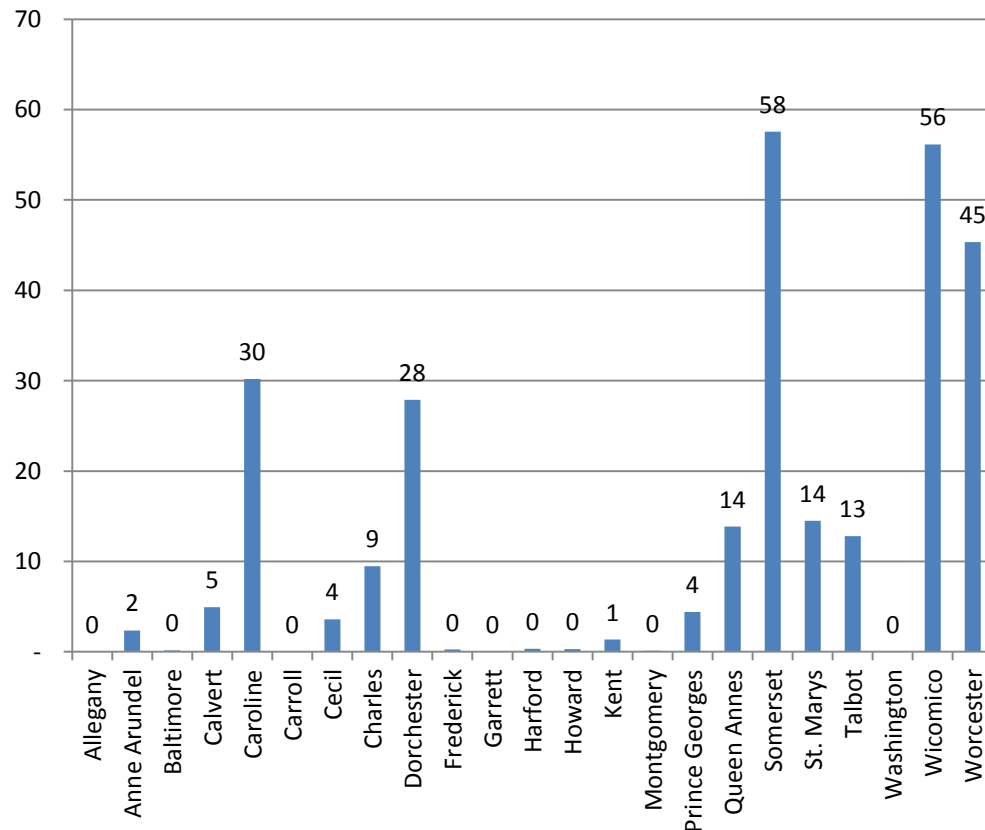
Kent, DE



MDA Effort

TN per Acre by Land Use

SOY



Total N and P Ratios

OHY			PAS			SOY		
	Average TNAppt CropGo al	Average TPAppto CropGo al		Average TNAppt CropGo al	Average TPAppto CropGo al		Average TNAppt CropGo al	Average TPAppto CropGo al
Allegany	0.80	0.54	Allegany	0.00	0.00	Allegany	0.00	0.68
Anne			Anne			Anne		
Arundel	1.37	5.06	Arundel	0.42	1.96	Arundel	0.07	0.48
Baltimore	0.80	0.30	Baltimore	0.04	0.00	Baltimore	0.01	0.57
Calvert	1.78	4.99	Calvert	0.58	0.58	Calvert	0.23	0.44
Caroline	2.76	3.57	Caroline	2.39	3.13	Caroline	1.44	0.60
Carroll	0.76	0.34	Carroll	0.02	0.00	Carroll	0.00	0.54
Cecil	1.54	2.39	Cecil	0.70	0.86	Cecil	0.22	0.55
Charles	1.71	2.11	Charles	0.73	0.42	Charles	0.37	0.52
Dorchester			Dorchester			Dorchester		
Frederick	2.74	3.87	Frederick	2.31	3.08	Frederick	1.34	0.57
Garrett	1.14	0.69	Garrett	0.10	0.00	Garrett	0.01	0.61
Harford	0.89	0.57	Harford	0.01	0.00	Harford	0.00	0.68
Howard	0.88	0.72	Howard	0.06	0.00	Howard	0.01	0.61
Kent	0.72	0.29	Kent	0.07	0.00	Kent	0.02	0.58
Montgomery	1.46	1.27	Montgomery	0.50	0.46	Kent	0.09	0.48
Prince Georges	0.83	0.30	Prince Georges	0.05	0.00	Montgomery	0.01	0.52
Queen Annes	1.34	1.01	Queen Annes	0.48	0.01	Prince Georges	0.34	0.67
Somerset	1.99	2.84	Somerset	1.45	1.91	Queen Annes	0.69	0.53
St. Marys	14.11	17.95	St. Marys	11.01	14.35	Somerset	2.56	0.76
Talbot	1.92	1.93	Talbot	1.07	0.38	St. Marys	0.69	0.56
Washington	2.01	2.94	Washington	1.43	2.16	Talbot	0.61	0.49
Wicomico	0.71	0.37	Wicomico	0.00	0.00	Washington	0.00	0.62
Worcester	13.20	18.19	Worcester	10.32	13.76	Wicomico	2.49	0.77
	6.37	7.82		5.14	6.75	Worcester	1.95	0.64



WV DEP Effort

Crop Applications in County

Aggregated Applications

GWM

	Acres	N (#/ac)	Napp/goal	Major N Source	P (#/ac)	Papp/goal	Major P Source	Any Manure?	Any Biosolids?
1987	499	88	0.72	F	24	0.81	M	Y	Y
1992	369	90	0.79	F	24	0.65	M	Y	Y
1997	371	96	0.72	F	27	0.62	M	Y	Y
2002	311	103	1.01	F	26	0.90	M	Y	Y
2007	143	89	0.75	F	30	0.89	M	Y	Y
2012	255	80	0.74	F	26	0.83	M	Y	Y
2013	243	93	0.74	F	30	0.85	M	Y	Y

GOM

	Acres	N (#/ac)	Napp/goal	Major N Source	P (#/ac)	Papp/goal	Major P Source	Any Manure?	Any Biosolids?
1987	3724	88	0.72	F	16	0.54	F	N	N
1992	2754	90	0.79	F	23	0.60	F	N	N
1997	2769	96	0.72	F	25	0.58	F	N	N
2002	2319	103	1.01	F	26	0.90	F	N	N
2007	1734	89	0.75	F	19	0.57	F	N	N
2012	3118	80	0.74	F	16	0.50	F	N	N
2013	2968	93	0.74	F	19	0.54	F	N	N

SOY

	Acres	N (#/ac)	Napp/goal	Major N Source	P (#/ac)	Papp/goal	Major P Source	Any Manure?	Any Biosolids?
1987	535	0	0.00	None	41	0.54	F	N	N
1992	752	0	0.00	None	30	0.60	F	N	N
1997	1,131	0	0.00	None	29	0.58	F	N	N
2002	1,175	1	0.06	F	14	0.90	F	N	N
2007	562	0	0.00	None	11	0.57	F	N	N
2012	1,117	0	0.00	None	7	0.50	F	N	N
2013	1,108	0	0.00	None	11	0.54	F	N	N



Urban Turf and Tree Canopy

landuses				Fertilized AG Landuses			Direct Deposit		
Acres	#N/yr	#P/yr		Acres	#N/yr	#P/yr	Acres	#N/yr	#P/yr
1992	36823	7	60043	29304	960024	190627	23332	628314	359053
2002	46937	8	76535	55116	1137553	251845	22253	662790	380210
2012	59149	0	96449	28294	736940	108069	18197	505725	287943

Decision Request

- Proposed action
- WQGIT support development of a database visualization tool
 - Nutrient generation and spread function
 - Various geographic scales
 - Years or eras of output summarized or averaged
 - Generates “heat” maps for ground truthing of inputs and/or outputs

