



# Collection Analysis of Agricultural Institutions

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# Objectives

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Experiment with databases to identify which tool has the most relevant bibliometrics

Collections Analysis spreadsheet with aggregated bibliometric data points

Collections Analysis Summary describing process and results



# What We Did

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Literature Review

Workshops with Vendors

Data Collection (Dimensions Analytics API)

Sample Visuals for Collections Analysis

Documentation (In-Progress)



# Literature Review

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## Citation Analysis of Atmospheric Science Publications by Faculty at TAMU

- 80/20 Rule

## Source of resources: a business school citation analysis study

- Type, Availability, Dept. Concentration, Age of Articles

## InCites Manual

- Relative Citation Performance



# Workshops with Vendors

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## InCites/Web of Science

- Macro, Meso, Micro Topic Areas

## Scopus

- ASJC Code, AFID, SUBJAREA

## Dimensions Analytics API

- Python, SQL

# Data Collection: AgNIC Partners

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44/54 Partners Publication Data Compiled

## Omitted from query

- Canadian Agricultural Library
- Colorado Water Center
- Inter-American Institute for Cooperation in Agriculture, SIDALC & Orton Memorial Library (CATIE)
- National Agricultural Law Center (NALC)
- SANREM Innovation Lab Knowledgebase Virginia Tech
- USDA Wildlife Service
- USDA and its child orgs (volume too large)
- NAL
- American Farmland Trust
- Oglala Lakota College



# Data Collection: Category Selection

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## 12 Fields of Research based on ANZSRC 2020 Group Subject Categories

- 3001 Agricultural Biotechnology
- 3002 Agriculture, Land and Farm Management
- 3003 Animal Production
- 3004 Crop and Pasture Production
- 3005 Fisheries Sciences
- 3006 Food Sciences
- 3007 Forestry Sciences
- 3008 Horticultural Production
- 3009 Veterinary Sciences
- 3108 Plant Biology
- 3210 Nutrition and Dietetics
- 4106 Soil Sciences

# Data Collection: Query

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March 15<sup>th</sup>, 2023

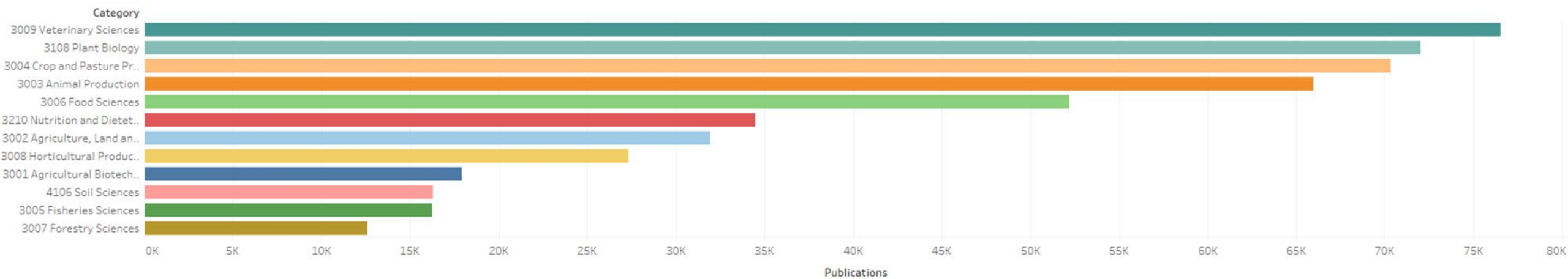
- **times\_cited**: number of times this publication has been cited
- **type**: type of publication (article, chapter, monograph, preprint, proceeding)
- **year**: year published
- **category**: sub-category listed by Dimensions
- **partner**: partner name





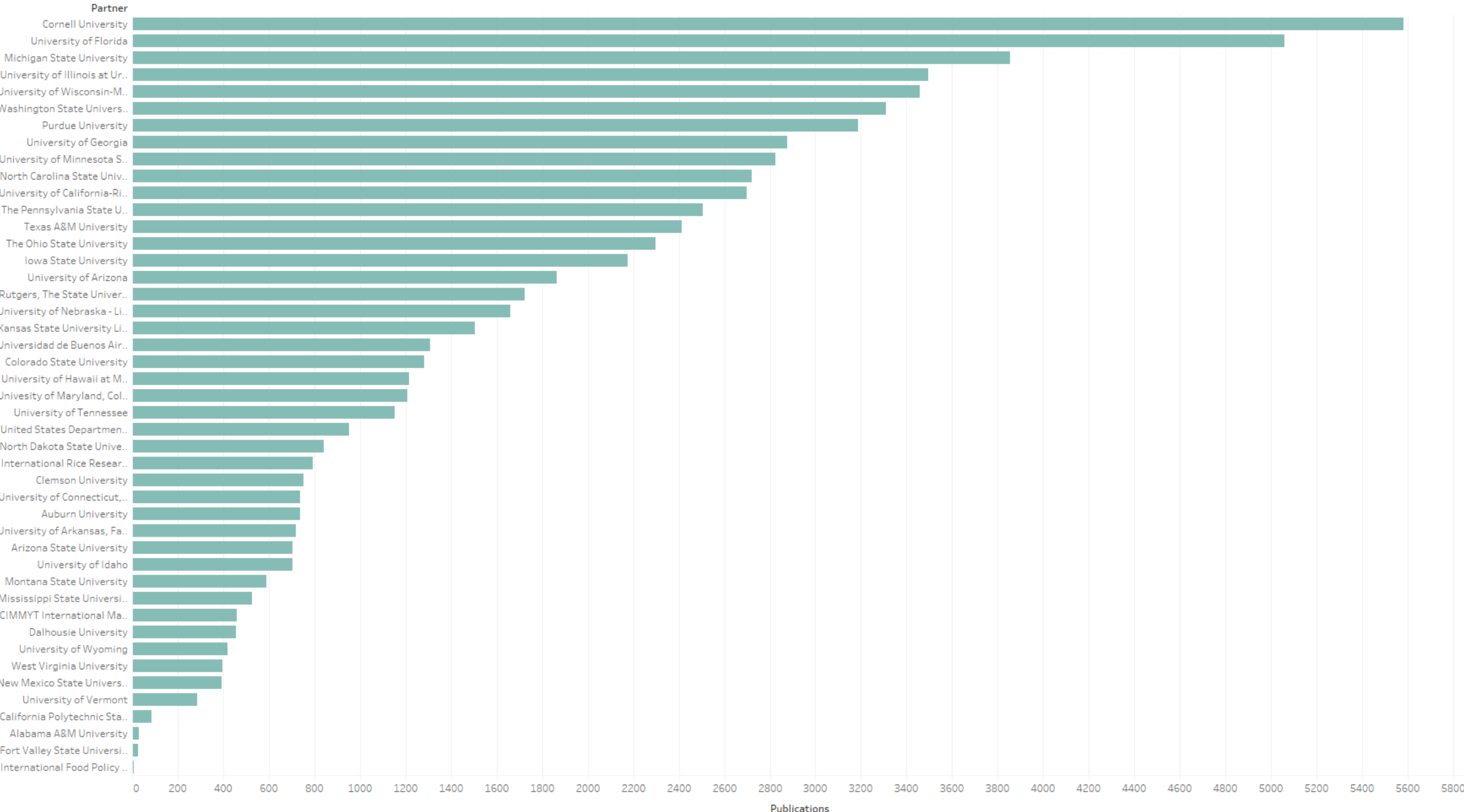
	3001	3002	3003 Animal	3004 Crop and	3005 Fisheries	3006 Food	3007 Forestry	3008	3009 Veterinary	3108 Plant	3210 Nutrition	4106 Soil
Partner	Agricultural Bi...	Agriculture, La...	Production	Pasture Produ...	Sciences	Sciences	Sciences	Horticultural P...	Sciences	Biology	and Dietetics	Sciences
Alabama A&M University	15	120	61	174	6	90	43	16	6	29	28	33
American Farmland Trust	1	6		10			1			2		2
Arizona State University	74	72	70	130	118	140	171	66	140	704	708	151
Auburn University	413	624	1,324	1,381	1,768	507	424	359	2,379	737	313	248
California Polytechnic Sta...	9	26	141	70	19	258	31	51	61	87	161	27
CIMMYT International Ma...	126	896	14	1,557		128	9	260	3	461	24	22
Clemson University	232	308	869	839	248	784	232	484	426	753	233	196
Colorado State University	415	632	1,678	1,529	364	652	808	397	5,356	1,283	600	691
Cornell University	872	1,397	3,766	3,618	687	3,841	461	2,653	2,628	5,583	3,069	750
Dalhousie University	62	255	195	497	558	372	68	176	116	457	362	103
Fort Valley State Universi...	28	36	166	75	2	60	4	22	60	26	5	
International Food Policy ...	42	116	63	153	13	193	7	34	7	9	551	8
International Rice Resear...	330	1,773	1	2,377	6	124	17	212		794	19	241
Iowa State University	737	1,725	3,601	2,977	367	2,083	195	555	3,348	2,174	768	830
Kansas State University Li...	571	1,368	3,335	2,715	179	2,364	137	517	2,934	1,503	424	387
Michigan State University	763	1,000	2,685	2,713	737	2,092	469	1,478	4,008	3,853	1,101	527
Mississippi State Universi...	413	609	1,311	1,113	771	608	334	267	1,133	528	130	128
Montana State University	154	357	447	854	215	177	110	129	212	590	109	137
National Agricultural Libr...	6			6		7		7	2	4	8	
New Mexico State Univer...	120	336	576	749	51	116	107	191	123	394	98	253
North Carolina State Univ...	1,060	1,363	3,122	3,296	756	2,312	714	1,343	5,057	2,719	439	537
North Dakota State Unive...	228	724	737	1,664	59	729	40	369	226	842	222	237
Oglala Lakota College					1				1	1	1	
Purdue University	585	913	2,788	2,051	326	2,226	374	737	2,555	3,186	1,535	516
Rutgers, The State Univer...	340	219	599	987	434	2,005	142	596	730	1,723	1,901	244
Texas A&M University	785	1,342	3,639	3,224	819	1,698	288	1,051	4,829	2,411	853	688
The Ohio State University	590	851	2,929	1,849	549	2,218	395	845	4,957	2,298	1,546	728
The Pennsylvania State U...	476	664	1,962	1,555	252	1,552	411	683	1,150	2,507	2,497	699
United States Departmen...	187	285	1,453	835	82	1,316	52	583	734	952	397	114
Universidad de Buenos Ai...	172	607	237	1,103	157	1,199	147	211	748	1,309	411	168
University of Arizona	350	349	672	1,080	372	1,496	431	380	454	1,863	1,017	767
University of Arkansas, Fa...	480	1,000	1,839	1,658	104	1,466	82	515	661	719	202	223
University of California-Ri...	492	428	59	1,251	61	122	184	816	190	2,699	89	775
University of Connecticut,...	98	104	520	283	309	487	159	132	526	739	1,150	139
University of Florida	1,265	2,398	3,361	5,351	1,012	1,545	893	3,293	4,963	5,059	1,759	1,055
University of Georgia	679	1,260	3,317	2,960	695	2,461	768	1,249	5,546	2,876	801	536
University of Hawaii at M...	207	235	228	564	544	255	155	332	166	1,215	563	212
University of Idaho	230	403	585	1,225	794	408	421	577	267	703	184	195
University of Illinois at Ur...	860	1,030	4,274	2,221	552	2,543	324	693	3,902	3,493	1,493	531
University of Minnesota S...	921	1,432	2,601	3,168	412	2,212	735	872	4,313	2,823	3,613	571
University of Nebraska - L...	756	1,598	2,163	2,927	194	1,420	147	463	763	1,659	770	503
University of Tennessee	442	423	1,102	906	126	1,943	342	301	2,630	1,154	616	333
University of Vermont	44	122	332	257	76	324	231	76	211	286	657	100
University of Wisconsin-...	597	1,083	3,466	2,481	417	2,443	564	1,023	3,968	3,456	1,467	701
University of Wyoming	68	151	582	288	205	112	178	42	511	420	175	202
Univesity of Maryland, Co...	153	340	1,040	775	315	1,076	281	380	653	1,209	509	298
Washington State Univer...	428	883	1,500	2,586	308	1,825	241	1,731	2,669	3,310	527	341
West Virginia University	74	95	566	242	214	232	260	155	189	396	361	146

Publications by Category

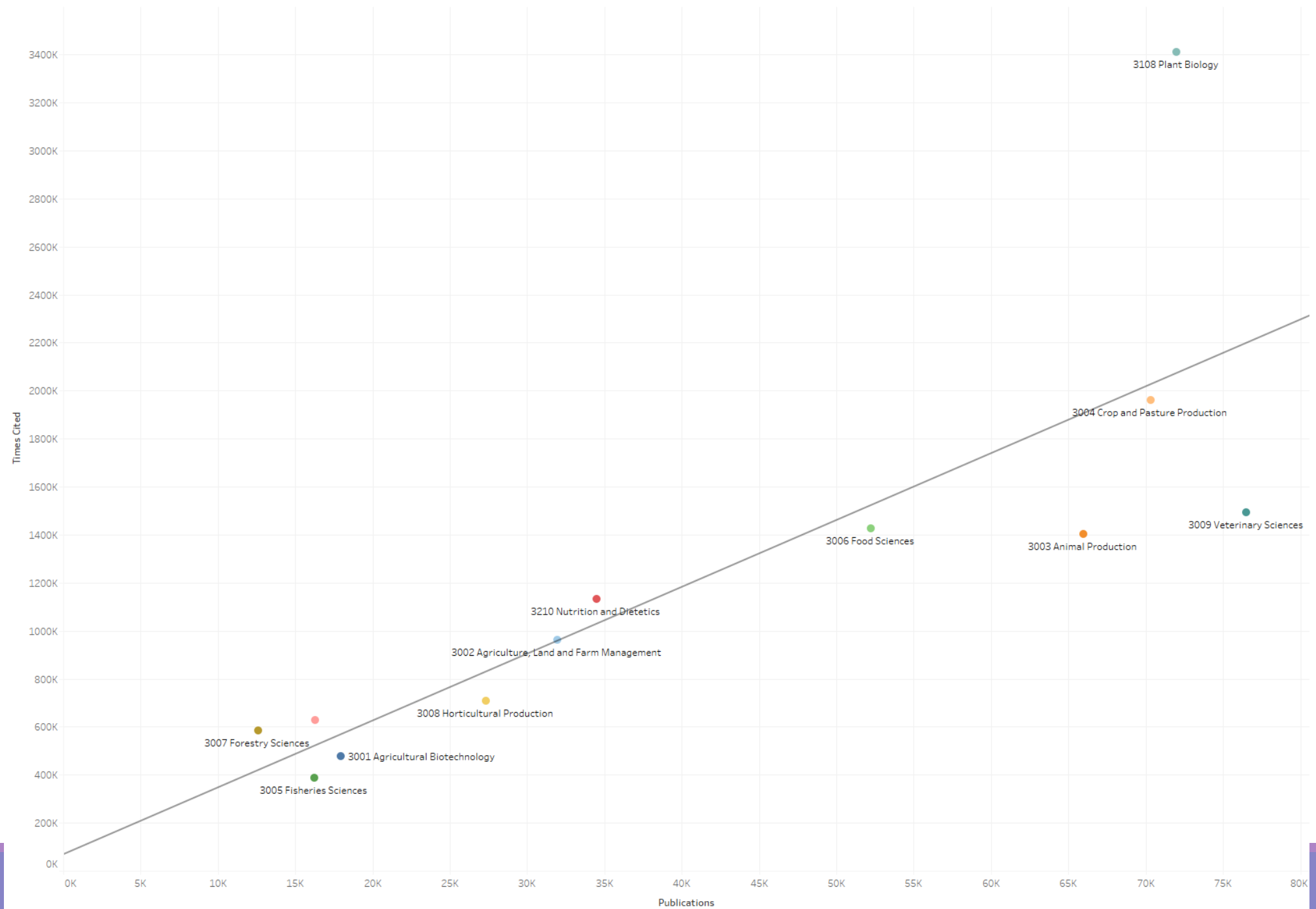




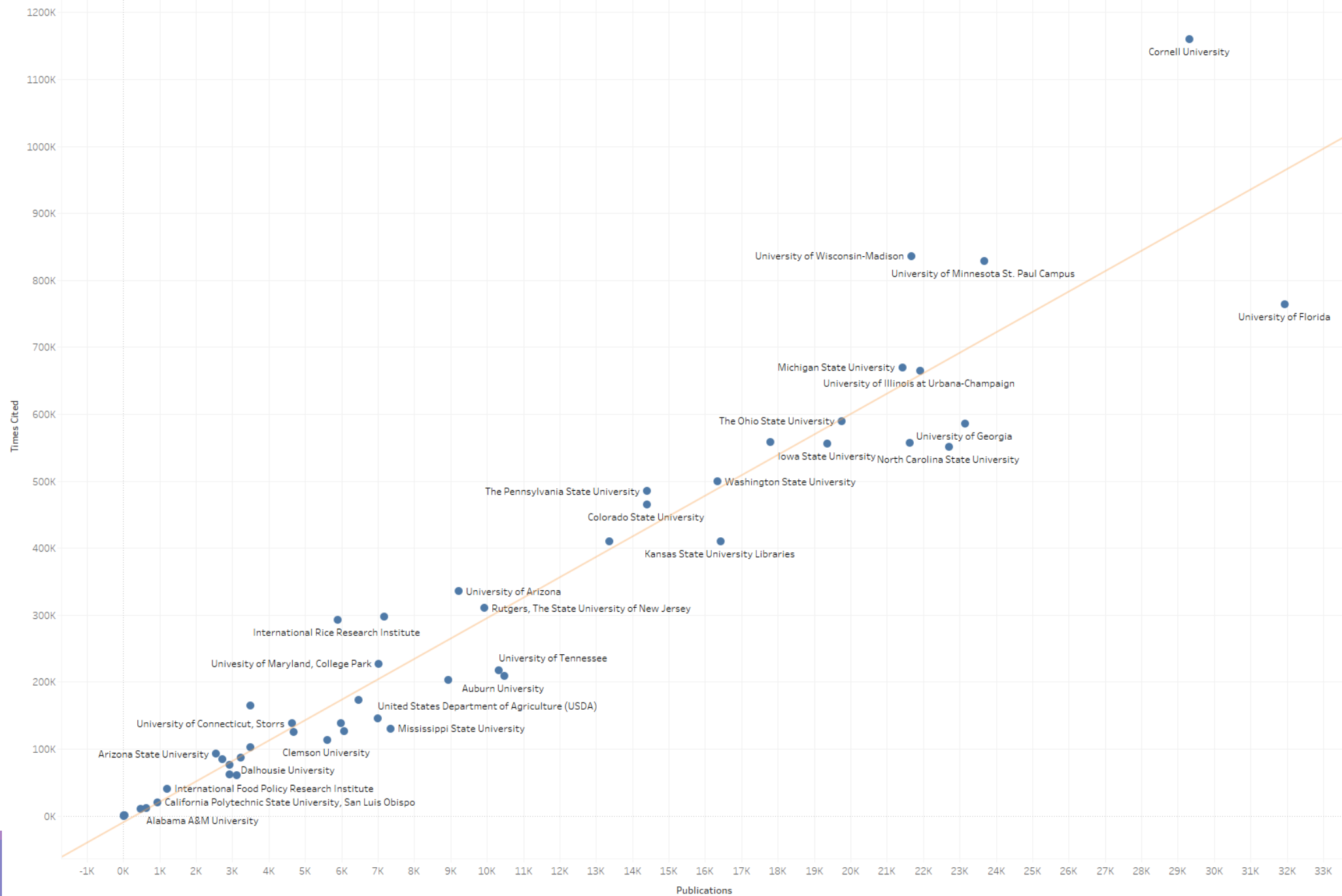
Publications by Partners (Plant Biology)



Publications vs Times Cited (Category)

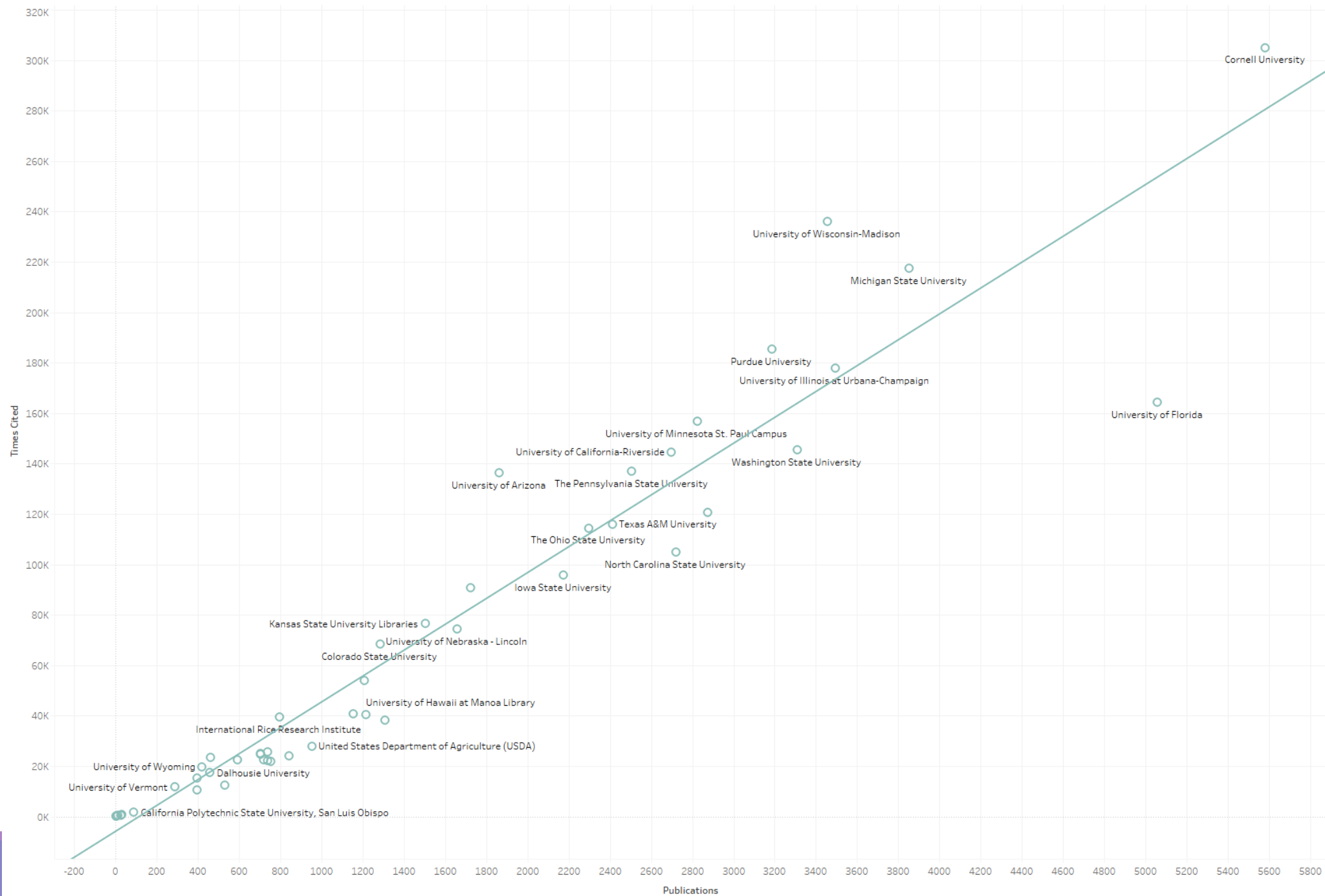


Publications vs Citations (Partners)

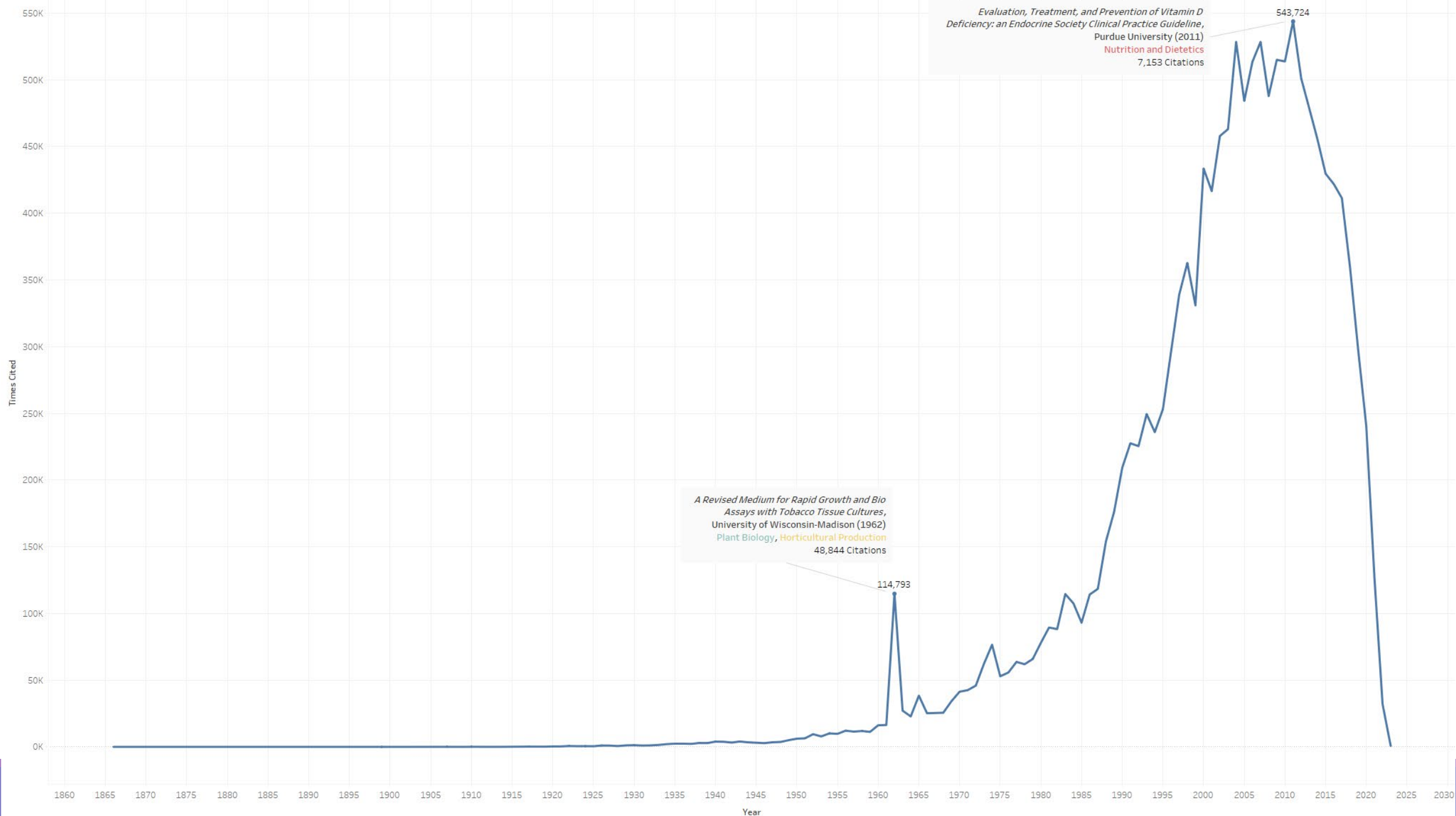




Publications vs Citations Plant Bio







# Challenges

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Working with Vendors

Getting Authorizations/Permissions

Limitations with front-end

Varying levels of engagement from partner members

# Next Steps

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In-Depth Collections Analysis

Explore other databases (Web of Science, Scopus, etc.)

Other methods of segmenting partners for analysis

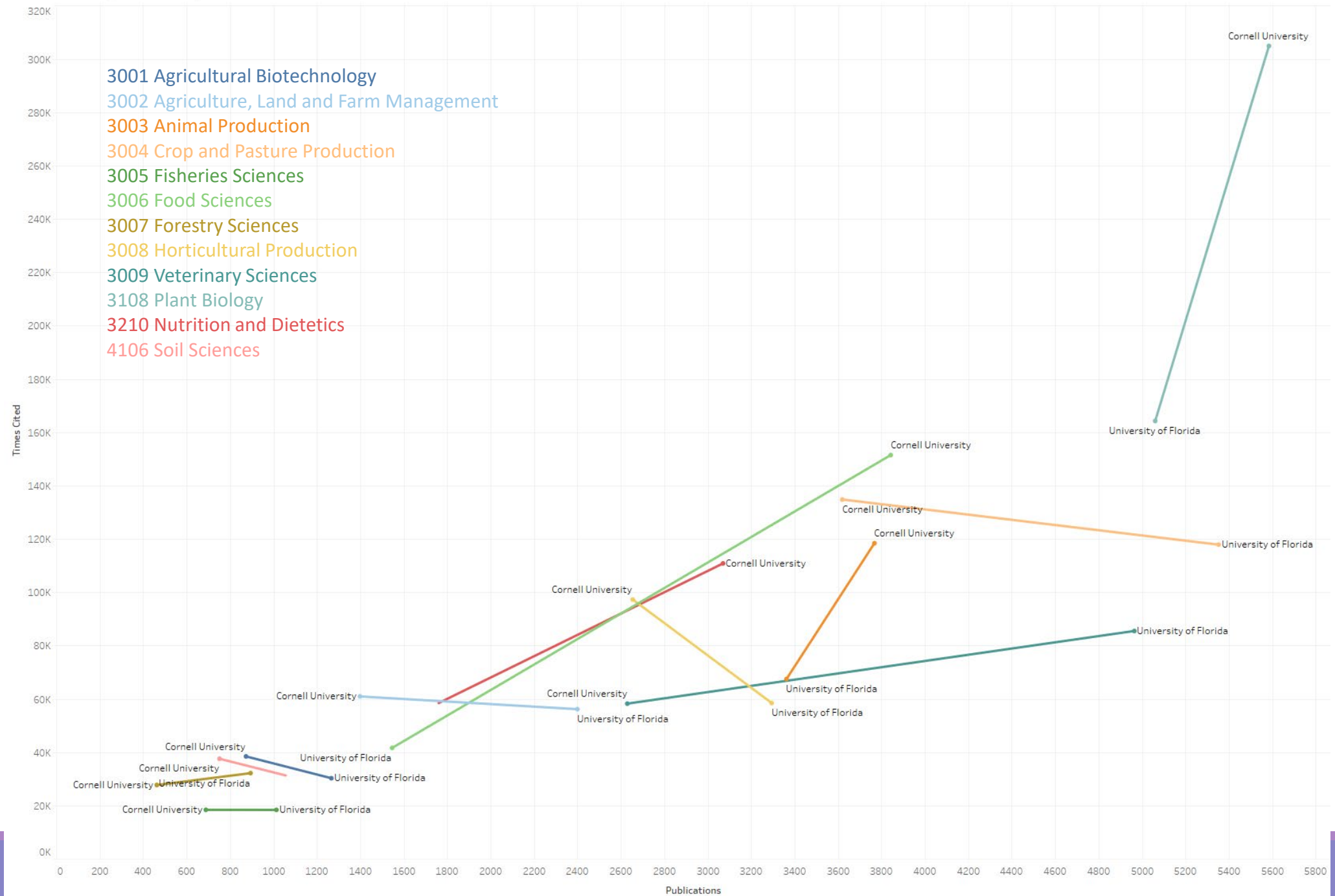
Communicating with Collections Managers at AgNIC Partners

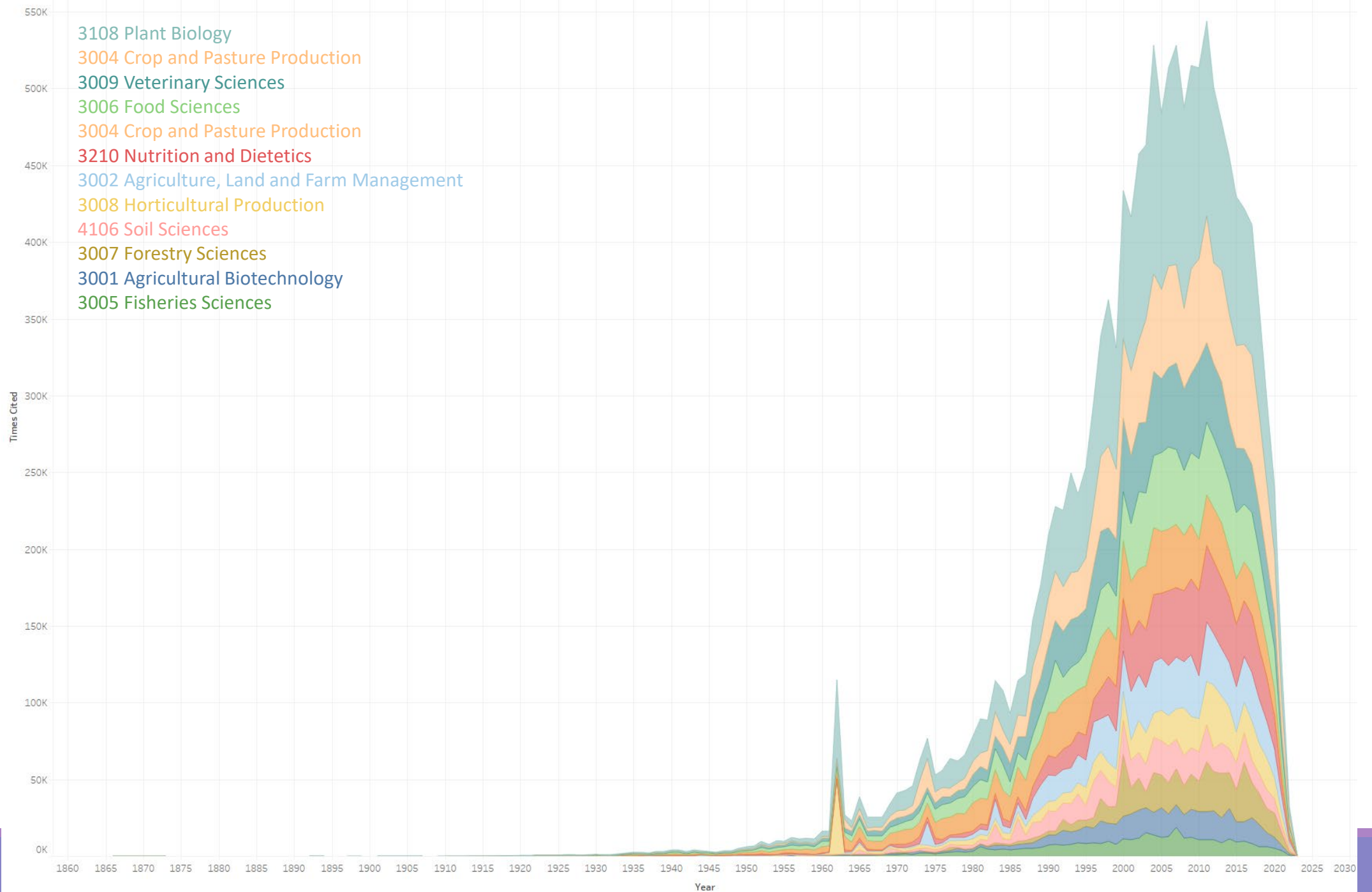
Inform decision-making for collaborative collections work

# Questions?

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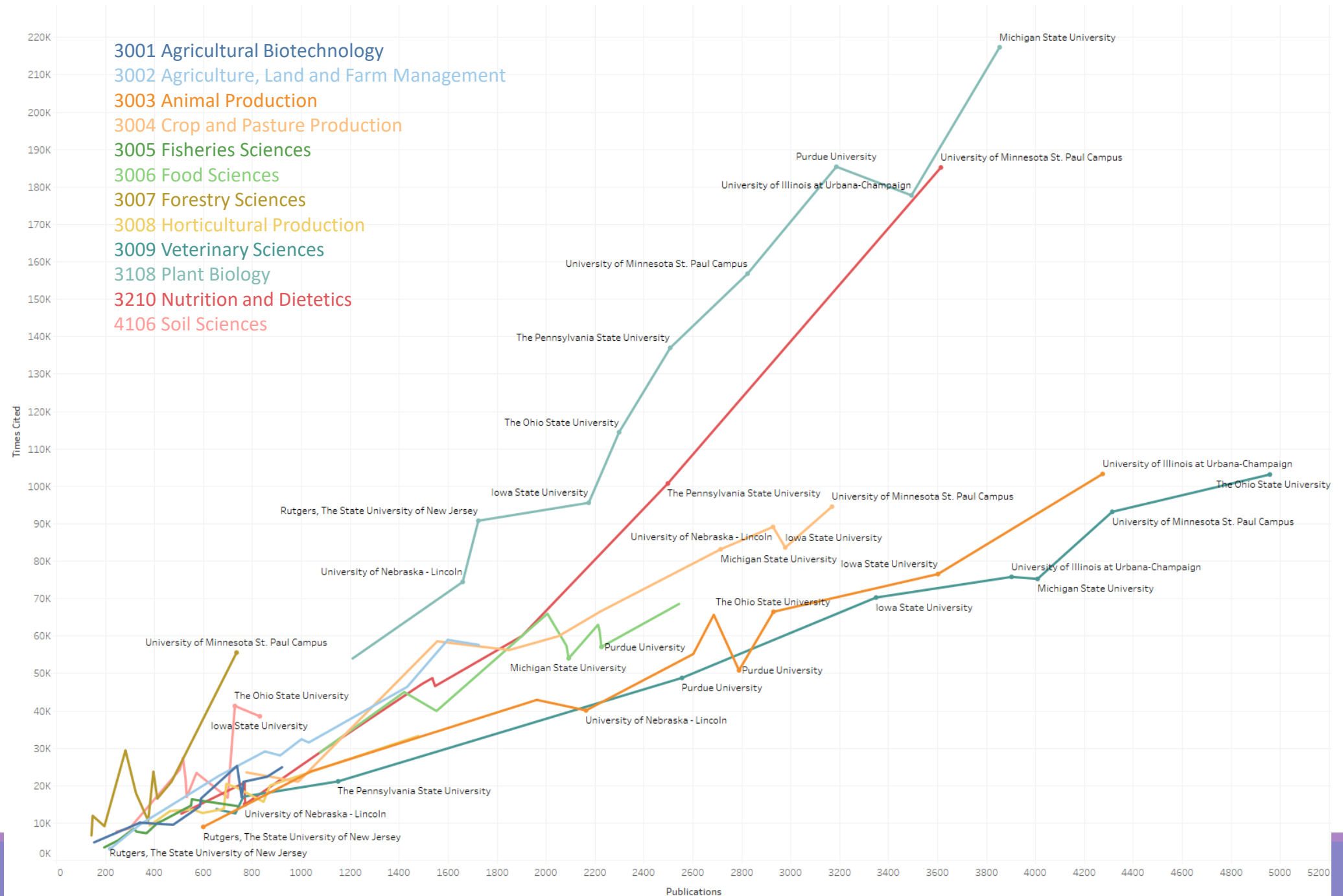
Cornell vs UF (Categories)







# BIG10 Categories





	3001	3002	3003 Animal	3004 Crop and	3005 Fisheries	3006 Food	3007 Forestry	3008	3009 Veterinary	3108 Plant	3210 Nutrition	4106 Soil
Partner	Agricultural Bi...	Agriculture, La...	Production	Pasture Produ...	Sciences	Sciences	Sciences	Horticultural P...	Sciences	Biology	and Dietetics	Sciences
Alabama A...	325	1,978	829	2,549	38	2,855	504	104	69	665	645	516
American F...	32	97		126			12			20		17
Arizona Sta...	2,860	2,814	1,496	11,438	3,150	2,684	16,464	2,761	3,687	25,070	15,749	4,128
Auburn Uni...	7,807	10,604	21,600	27,833	39,581	9,468	6,746	2,555	39,933	25,505	8,321	8,320
California P...	110	360	3,384	1,327	351	6,037	494	570	2,214	1,679	3,182	503
CIMMYT Int...	3,631	45,407	152	72,535		3,798	339	14,109	46	23,443	508	850
Clemson Un...	7,375	5,782	14,399	12,068	4,194	20,973	4,733	8,419	4,712	21,915	5,253	3,493
Colorado St...	9,780	21,636	33,863	48,948	8,848	20,996	61,268	11,553	111,115	68,483	13,399	55,459
Cornell Uni...	38,557	61,057	118,515	134,915	18,518	151,569	27,824	97,395	58,350	305,033	110,943	37,676
Dalhousie U...	2,355	5,284	3,015	10,636	16,624	10,732	1,724	4,658	2,059	17,298	10,195	2,555
Fort Valley ...	346	966	3,121	1,730	24	1,307	49	138	1,716	371	38	
Internation...	1,267	3,859	1,351	9,173	454	3,939	204	1,695	415	350	17,412	314
Internation...	10,541	95,166	21	123,702	44	4,550	737	10,303		39,556	581	7,364
Iowa State ...	25,287	57,617	76,558	83,647	7,285	57,414	9,154	13,626	70,283	95,607	20,838	38,539
Kansas Stat...	13,489	33,184	58,285	81,190	3,014	52,864	6,780	14,660	51,205	76,418	7,664	10,645
Michigan St...	21,042	32,418	65,670	83,182	14,561	54,025	21,044	33,305	75,263	217,368	30,023	21,566
Mississippi ...	8,415	11,574	19,389	20,946	17,133	11,881	4,544	4,987	13,649	12,328	1,384	3,922
Montana St...	3,729	9,493	6,007	20,946	4,830	4,447	5,872	5,764	5,446	22,530	1,966	11,105
National Ag...	199			8		5		3	28	1	34	
New Mexic...	3,113	5,044	7,657	10,080	550	1,754	8,449	3,478	1,590	10,690	1,180	7,159
North Carol...	24,295	31,564	63,486	68,097	18,254	68,214	16,938	25,301	105,739	104,904	8,466	15,189
North Dako...	4,024	13,797	10,182	32,079	1,870	20,275	727	6,849	2,907	24,091	5,450	4,531
Oglala Lako...					2				26	25	13	
Purdue Uni...	14,465	28,072	50,826	59,969	7,699	57,084	10,610	19,442	48,802	185,430	48,741	27,478
Rutgers, Th...	10,102	3,122	8,975	21,065	10,688	65,973	6,682	12,693	12,562	90,812	59,996	7,727
Texas A&M ...	13,912	30,185	77,342	68,164	22,076	55,351	10,511	27,548	84,288	115,938	31,957	19,831
The Ohio St...	16,579	29,147	66,480	56,248	14,682	61,536	23,766	15,668	103,164	114,464	46,597	41,301
The Pennsylv...	9,553	22,673	42,932	58,582	5,393	39,955	16,528	13,771	21,149	137,020	100,753	16,778
United Stat...	5,994	4,461	25,669	15,155	1,463	19,260	1,265	10,423	14,708	27,983	13,436	5,261
Universida...	5,285	20,245	3,154	31,465	2,342	33,229	11,121	5,480	9,213	38,124	8,108	4,722
University ...	14,977	7,071	20,178	33,421	9,204	11,825	26,604	12,792	10,354	136,306	29,488	23,292
University ...	8,515	21,944	35,671	35,305	1,428	41,842	2,760	9,552	14,340	22,401	4,750	4,135
University ...	11,384	16,020	1,772	45,787	903	1,930	8,070	20,910	4,847	144,649	3,760	36,695
University ...	3,219	1,734	13,499	5,503	8,117	17,114	11,578	4,747	10,860	22,119	35,283	4,090
University ...	30,381	56,270	67,583	117,982	18,497	41,746	32,271	58,571	85,599	164,366	58,560	31,408
University ...	15,150	27,441	64,388	62,481	14,135	73,026	25,469	28,677	111,494	120,700	17,996	24,182
University ...	7,520	5,469	3,217	10,949	14,926	4,133	4,936	6,785	3,183	40,388	15,470	8,000
University ...	4,411	9,484	10,158	22,656	20,731	9,484	12,164	10,001	5,450	24,820	2,818	5,775
University ...	22,389	31,529	103,321	66,529	16,354	68,571	17,984	20,485	75,803	177,776	47,192	16,915
University ...	24,925	46,396	55,172	94,579	10,042	63,000	55,561	20,043	93,197	156,833	185,230	23,396
University ...	16,820	58,977	40,118	89,164	3,490	45,019	11,960	13,209	17,074	74,458	15,031	24,266
University ...	8,127	7,098	19,177	15,908	3,203	24,712	12,866	4,915	49,227	40,731	20,284	10,464
University ...	2,610	3,609	7,108	8,531	1,623	6,727	7,418	915	3,622	11,726	27,612	2,627
University ...	20,924	33,580	101,057	79,079	13,472	76,784	31,123	79,389	84,408	235,883	56,277	23,783
University ...	1,265	3,002	11,044	4,742	4,568	3,923	7,153	757	10,858	19,728	4,167	5,230
Univesity o...	4,845	9,590	23,831	23,543	8,509	28,873	29,454	9,361	13,733	53,985	12,507	8,588
Washingto...	13,769	33,649	32,735	74,586	9,025	58,728	6,914	37,581	53,811	145,527	16,896	15,901
West Virgin...	1,274	1,659	10,338	4,052	4,490	5,873	5,579	2,502	2,038	15,132	5,635	3,392

3108 Plant Biology

3009 Veterinary Sciences

3210 Nutrition and Dietetics

3002 Agriculture, Land and Farm  
Management

3006 Food Sciences

3008 Horticultural Production

4106 Soil Sciences

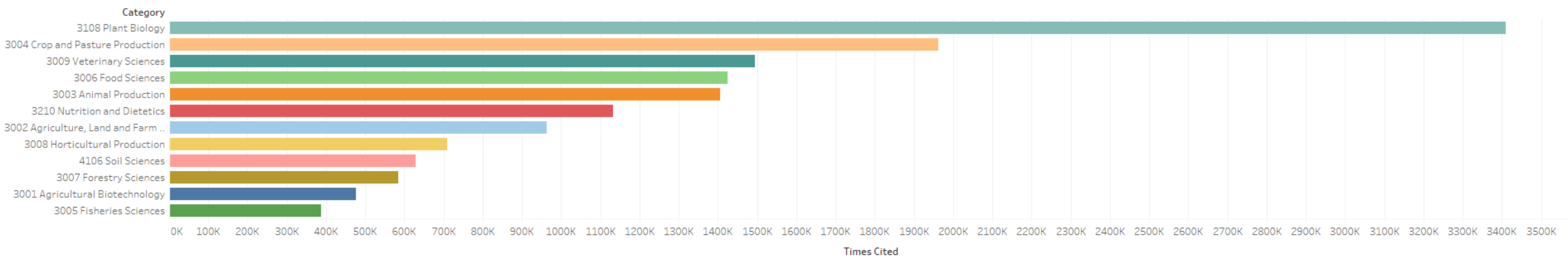
3007 Forestry Sciences

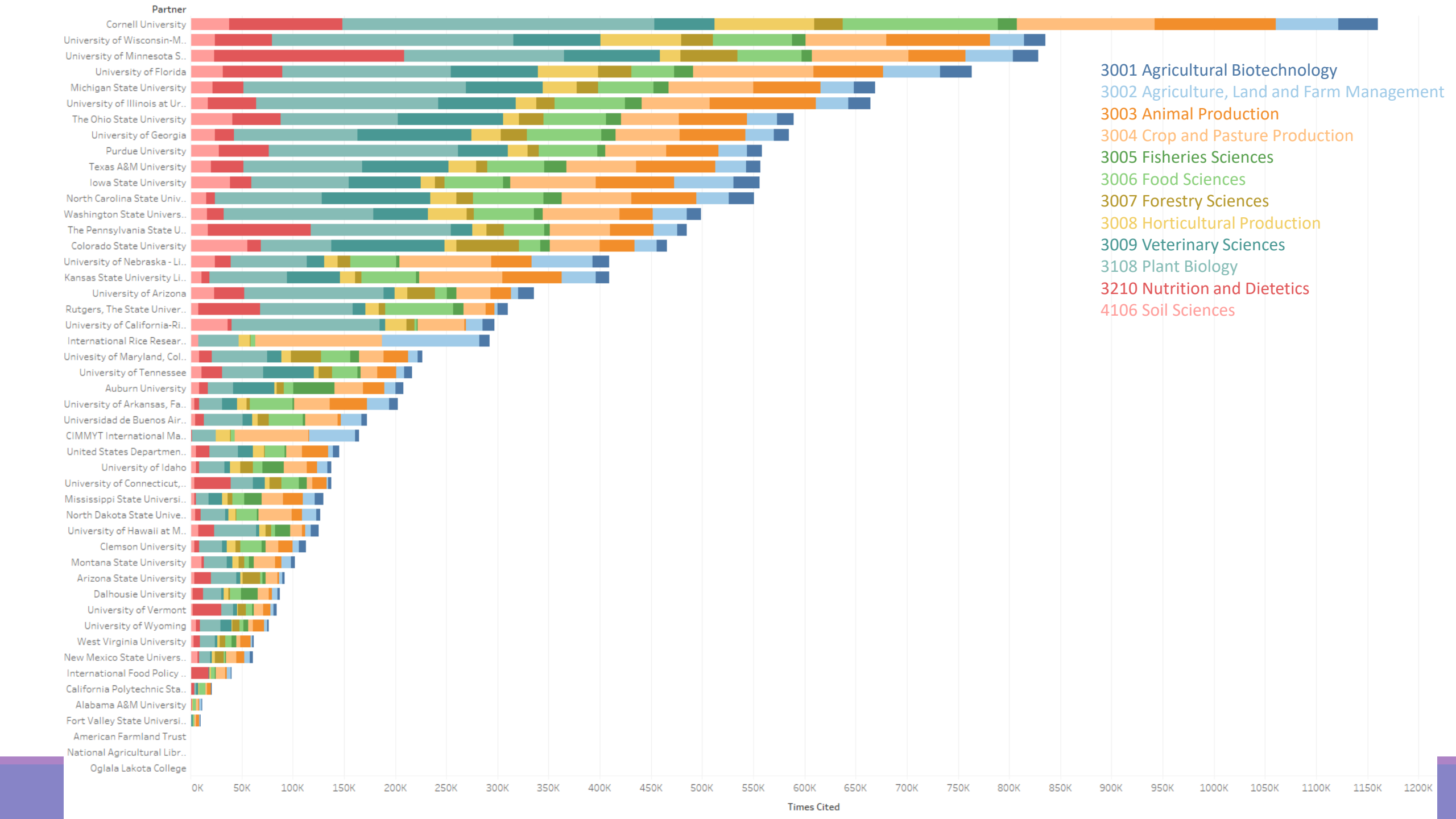
3004 Crop and Pasture Production

3003 Animal Production

3001 Agricultural Biotechnology

3005 Fisheries Sciences





Publications

