Bioplastic Market Reconnaissance

Preliminary survey of leading products

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Presentation to CalRecycle, Cal EPA Headquarters Sacramento, CA

Objectives

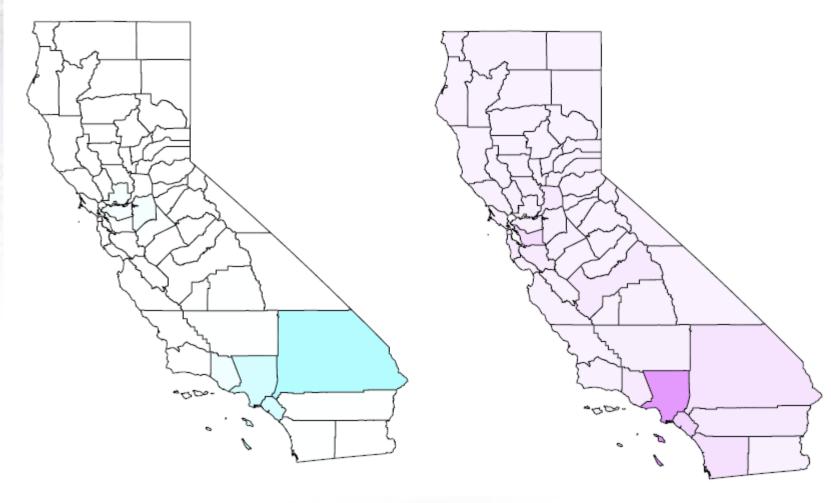
- Identify leading bioplastic candidate products
- 2. Map their supply and demand by county
- 3. Identify leading upstream and downstream sectors for each

Five Leading Candidate Sectors

Tentatively, we identified the following:

- 1. Plastic bottle manufacturing
- 2. Plastic packaging material, film, and sheets
- 3. Laminated plastic plates, sheets, and other shapes
- 4. Plastic hose and rubber belting
- 5. All other plastic products

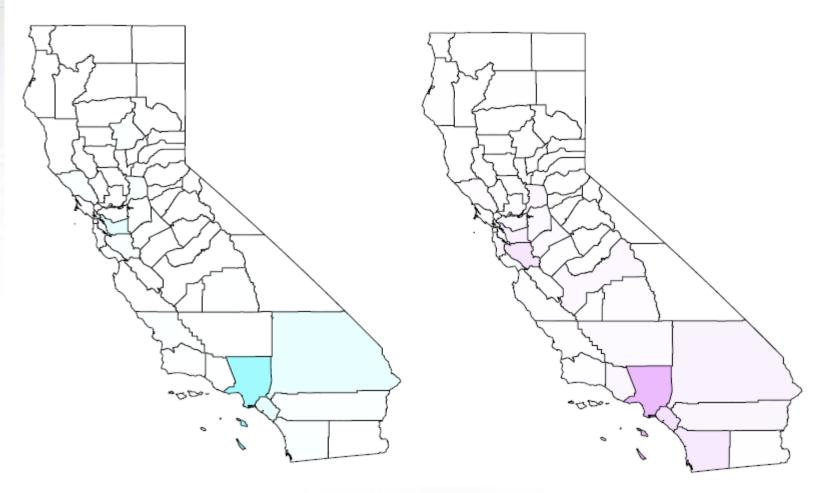
Plastic Bottle Manufacturing



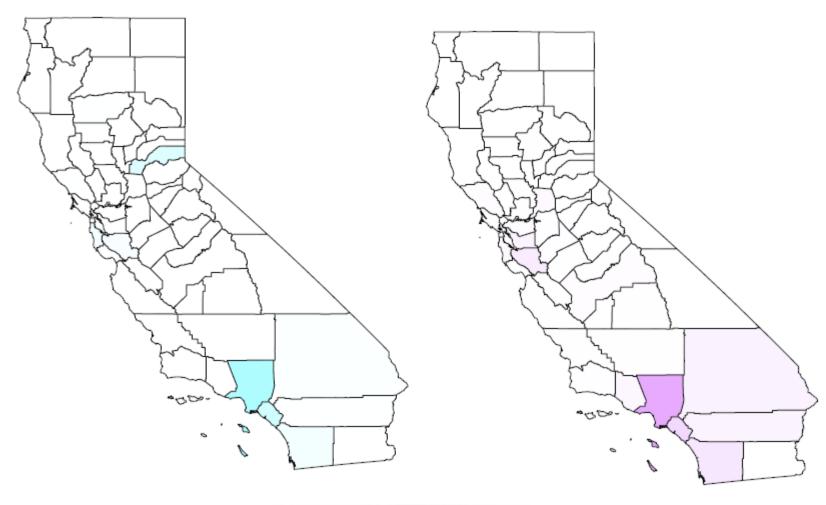
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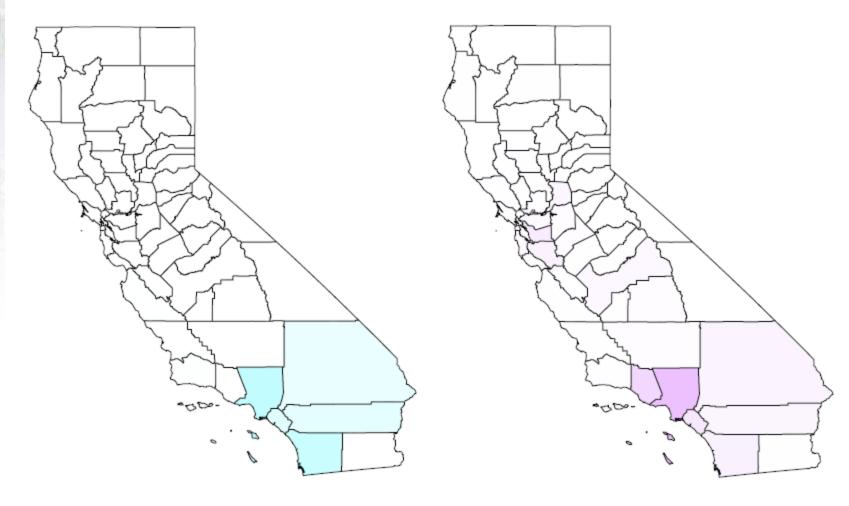
Plastics packaging materials, film and sheets



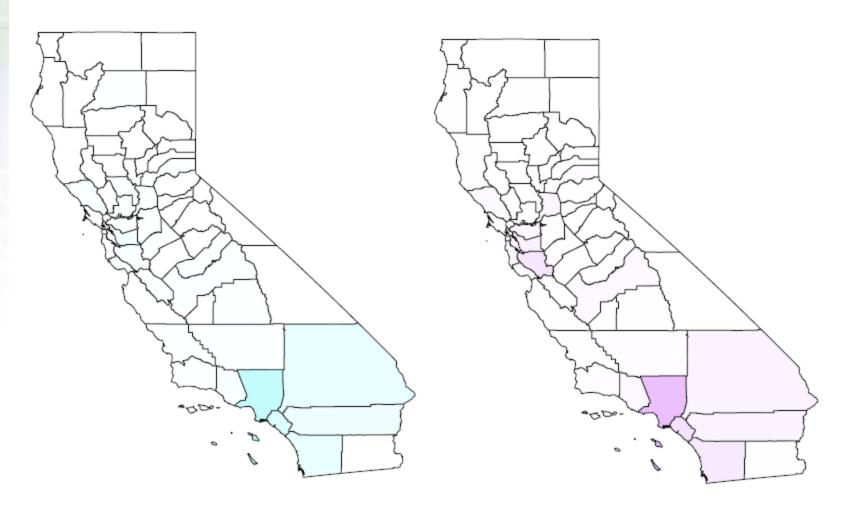
Laminated Plastic Plates, Sheets, and other Shapes



Plastics Hose and Rubber Belting



All Other Plastic Products



	Plastic Bottle Manufacturing	
	Demand - Inputs	
1	Wholesale Trade	38.454
_	Truck Transportation	31.606
_	Power generation and supply	25.681
_	Plastic Packaging Materials	20.495
	Plastic pipes, fittings, and shapes	15.244
	Real Estate	12.967
7	Management of Companies and Enterprise	12.726
_	All other miscelaneous professional and technical	11.724
_	Rail transportation	5.428
10	Monetary authorities and depository credit intermedi	5.268
	Supply - Output	
1	Soft drink and ice manufacturing	527.815
_	Toilet preparation manufacturing	175.620
3	Pharmaceutical and medicine manufacturing	155.461
_	Polish and other sanitation good manufacturing	79.520
_	Fluid milk manufacturing	50.854
6	Soap and other detergent manufacturing	46.834
7	-	33.263
8	Wholesale trade	32.599
9	Office of physicians - dentists and other health	16.675
10	Fats and oils refining and blending	15.396

	Plastic packaging materials	
	Demand - Inputs	
1	Wholesale Trade	55.193
2	Truck Transportation	48.825
3	Management of Companies and Enterprise	35.843
4	Plastic Packaging Materials	32.416
5	Plastic pipes, fittings, and shapes	23.606
6	Power generation and supply	19.913
7	All other miscelaneous professional and technical	17.540
8	Printing ink manufacturing	16.626
9	Custom compounding of purchased resins	10.243
10	Semiconductor and related manufacturing	9.750
	Supply - Output	
1	Pharmaceutical and medicine manufacturing	126.338
2	Audio and video equipment manufacturing	83.811
3	Wholesale trade	66.045
4	All other plastics	62.208
5	Bread and bakery products	48.302
_	Magnetic and optical recording media manufacturing	44.069
7	Semiconductors and related manufacturing	38.594
8	Other snack food manufacturing	33.094
9	Plastic packaging materials	32.416
10	Surgical and medical instrument manufacturing	30.509

La	Laminated Plastic pipes, fittings, and shapes		
	Demand - Inputs		
1	Wholesale Trade	38.253	
2	Management of Companies and Enterprise	9.103	
3	Truck Transportation	7.944	
4	Plastic Packaging Materials	7.461	
5	Plastic pipes, fittings, and shapes	5.832	
6	Glass and glass products	5.099	
7	All other miscelaneous professional and technical	4.236	
8	Patroleum Refineries	3.012	
9	Laminated plastic pipes, fittings, and shapes	2.691	
10	Power generation and supply	2.678	
	Supply - Output		
1	Audio and video equipment manufacturing	28.173	
2	Motorcycle -bicycle part manufacturing	22.107	
3	Electrometrical apparatus manufacturing	20.576	
4	All other plastics	19.492	
5	Wholesale trade	17.990	
6	Sound recording industries	12.530	
	Sporting goods manufacturing	11.951	
	Magnetic and optical recording media manufacturing	11.831	
9	Automatic environmental control manufacturing	11.553	
10	Management of companies and enterprise	11.503	

	Plastic Hoses and Rubber Belts	
	Plastic Hoses and Rubber Beits	
	Demand - Inputs	
1	Wholesale Trade	0.008
2	Management of Companies and Enterprise	0.006
3	Truck Transportation	0.006
4	All other miscelaneous professional and technical	0.006
5	Architecture/Engineering service	0.006
6	Power generation and supply	0.005
7	Patroleum Refineries	0.004
8	Semiconductor and related manufacturing	0.004
9	Other basic organic chemical manufacturing	0.004
10	Monetary authorities and depository credit intermedi	0.003
	Supply - Output	
1	Real estate	10.852
2	Automobile and light truck manufacturing	7.632
3	Commercial machinery repair and maintenance	4.713
	Motor vehicle part manufacturing	3.438
5	Ball and roller bearing manufacturing	3.057
6	Commercial machinery repair and maintenance	2.437
7	Farm machinery manufacturing	2.001
8	Semiconductor machinery manufacturing	1.692
9	Owner occupied buildings	1.521
10	Constructing machinery manufacturing	1.517

	All other Plastics	
	Demand - Inputs	
1	Wholesale Trade	216.846
2	Truck Transportation	88.864
3	Management of Companies and Enterprise	78.349
4	Patroleum Refineries	73.472
5	Patroleum manufacturing	68.864
6	Plastic pipes, fittings, and shapes	67.778
	Plastic Packaging Materials	62.208
	Power generation and supply	50.934
9	All other miscelaneous professional and technical	47.244
10	Real Estate	31.760
	Supply - Output	
1	New residential 1-unit structures	474.627
2	Electronic computer manufacturing	212.877
3	Pharmaceutical and medicine manufacturing	187.381
4	Wholesale trade	186.602
5	Hospitals	152.569
6	Commercial and institutional building	130.362
7	Other ambulatory health care services	126.318
8	Commercial machinery repair and maintenance	99.725
9	New residential additions - all	79.867
10	Office of physicians and other related health care	74.925

Thank you