

	Bee Industry	Biological Threats	Agro-industry Moves	Research	Group Actions	Background Ideas
1600	Honey Bee introduced to Americas					
1908	Migratory beekeeping started in USA					
1920	Import ban on new bees to USA					Bee genetics limited since 1920
1945				DDT and 2,4-D found to be effective weed killers		Post WWII pesticide use increases
						Agent Orange, an herbicide used during the Vietnam War, contained both 2,4-D and 2,4,5-T. Dioxin
1947	5.9mil commercial hives					
1950						32 species of bees extinct in PA
1956	Large scale trucking of bees out of winter rest to pollinate February almond crop in CA starts					Africanized bees imported to Brazil
1970			Round-up patented			
1980	4.5mil commercial hives					
1982						Internet developed
1986					Slow-food movement starts	Supercomputers used by research
1987		Varroa mite found in US				
1990	Africanized bees found in TX, NV, CA					
1993						2way communication via Internet = 1%
1996			Round-up Ready soybeans			
1997			Round-up Ready cotton & canola			
1998			Round-up Ready corn	RNAi technology published		
2000						2way communication via Internet = 51%
2003			Insect resistant corn			
2004		IAPV found in US				
2005	Australian bees imported to US					
2006	CCD crisis	CCD wiped out 50-80% of hives	Round-up Ready alfalfa	Nobel Prize awarded for RNAi	Beekeepers alerting extension and government officials	
2007	Economic livelihood threatened	steady 30% decline in hives	47% increase in pesticide use	CCD working group established	CCD action Plan published	2way communication via Internet = 97%
				Research focus on pathogens, virus, environmental causes, effects of current miticides, antibiotics and management	MAARC becomes info clearing house	
	Restocking from imported bees				University researchers, extension agents, USDA and local beekeepers working together	
					Beekeepers also form coalitions	Beekeepers mostly solitary personalities
					Federal money allocated to research	
2008	2.44mil commercial hives	steady 30% decline in hives	GMO sugar-beets	IAPV named and incorrectly linked to Australian bee import		Science and government viewed as research authority
2010		steady 30% decline in hives	Super-weed problems surface	Breeding for resistance research		
2011		steady 30% decline in hives	2,4-D and RoundUp in GMO crops	Neonicotinoides linked to bee deaths in France	France and Canada ban neonicotinoides	2,4-D manufacturers spend millions of dollars each year pressuring governments worldwide to re-register 2,4-D based on safety studies which they fund
				U of GA studying RNAi to shut off IAPV	Slow-food movement advocates for honey-bee research and accountability	Häagan Dazs "Help the Honeybee" campaign
			Monsanto purchases Beeologics (owner of RNAi technology for bees)	CCD control not a product but knowledge based enterprise		
2012		steady 30% decline in hives				
2035	Prediction of extinction if population declines continue at current rates					