					İ	1	}			 	
		2014		2013		2012		2011		2010	
1 # P	Participants responding to minimum required questions	responses 123	2014	responses 138	2013	responses 92	2012	responses 76	2011	responses	
Of t	these:									87	
	of participants who are members of Marin Beekeepers	106 113	86.2% 91.9%	118 125	85.5% 90.6%	84 87		69	90.8%	76	87.49
	tipants who keep bees in other counties:	113	91.970	123	90.0%	07	94.070	/2	94.770	81	0.0%
	lameda	2	1.6%	3	2.2%	1	1.1%			1	1.1%
	Contra Costa Mt. Diablo	1	0.8%	2	1.4%	2	2.2%	1		1	1.1%
- N	lapa	2	1.6%							0	0.0%
	San Joaquin San Francisco	2	1.6%	2	1.4%	1	2.2%			1	
	Santa Cruz	1	0.8%		1.470		2.270			2	
	Sonoma	1	0.8%	5	3.6%	1	1.1%	2		1	1.19
	Santa Clara Solano			2	1.4%			1		 	
										‡	
Par	ticipants with colonies (hives) in one location	98	79.7%	103	74.6%	71	77.2%	63	82.9%	73	83.9
Par	ticipants with colonies in two locations	13	10.6%	21	15.2%	10	10.9%	7	9.2%	10	11.5
	ticipants with colonies in three or more locations erested observers (observing feral colonies)	12	9.8% 2.4%	14 3	10.1% 2.2%	11	12.0%	6	7.9%	3 1	3.49
Par	ticipants with colonies cared for by another	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.19
Pro	fessional beekeepers	2	1.6%	2	1.4%	3	3.3%	1	1.3%	2	2.39
	perience Level:									 	
	rted keeping bees in 1940's	1	0.8%	1	0.7%	1 0	1.1%	0		1	1.19
	rted keeping bees in 1960's rted keeping bees in 1970's	3	2.4%	3	0.0% 2.2%	3	0.0% 3.3%			1 3	
Sta	rted keeping bees in 1980's	4	3.3%	5	3.6%	2	2.2%	4	5.3%	6	6.99
	rted keeping bees in 1990's rted keeping bees between 2000-2007	4 17	3.3% 13.8%	5 22	3.6% 15.9%	3 19	3.3% 20.7%	18	2.6%		3.49
	rted keeping bees between 2000-2007 rted keeping bees 2008 or later	92	74.8%	98	71.0%	63			68.4%	23 49	56.3
	rted keeping bees 2008	9	7.3%	9	6.5%	8			17.1%	<u> </u>	
	rted keeping bees 2009 rted keeping bees 2010 or later	11 72	8.9% 58.5%	22 67	15.9% 48.6%	20 35		17	22.4%	<u> </u>	·
	rted keeping bees 2010	13	10.6%	18	13.0%	20		22	28.9%		
	rted keeping beees in 2011	19	15.4%	24	17.4%	15	16.3%			-	.i
	rted keeping bees in 2012 rted keeping bees in 2013	21 19	17.1% 15.4%	25	18.1%					†	
										‡	
3 The	e numbers:									 	·
# c	colonies participants had as of 4/1/11	375	TOTAL	418	TOTAL	206				140	
	colonies acquired after 4/1/11 and 3/31/12	442	81700.0%	434	852	345	551	194	293	192	332
	e of colonies acquired: (note: in 2014 only 442 were orted acquired, but below totals #447. % based on 447			total below =				(total below =		į	•
#)		447		449				213)		 	
	Package Gwarm (May-June)	40 121	8.9% 27.1%	51 129	11.4% 28.7%	101 97	27.3% 26.2%		23.9%	70 62	21.1
	Swarm (July & After)	24	5.4%	21	4.7%	31		26	12.2%	12	3.6
	colony splits	146	32.7%	119	26.5%	81			12.7%	21	6.3
	Nuc (all types, including Bonnie Bee & Co.) Nuc - Bonnie Bee & Co. (in 2012 column, refers to Old Sol	71	15.9%	66	14.7%	46	12.4%	34	16.0%	25	/.5
Nuc	cs, in 2011: Zia nucs)	49	11.0%	35	7.8%	29		25	11.7%		
	Colony from another beekeeper Feral colony under observation	17 2	3.8% 0.4%	11 16	2.4% 3.6%	<u>6</u>			6.6%	9	2.79
	Other	26	5.8%	36	8.0%	1			3.8%	6 6	
				449		370		213		211	
	of colonies Lost between 4/1/11 - 3/31/12 (includes sold & en away noted below)	332	40.6%	343	40.3%	253	45.9%	138	52 7%	173	52.1
	of colonies remaining on 3/31/12	463	56.7%	494	58.0%	298		124	47.3%	161	48.5
	of colonies sold locally 4/1/11 - 3/31/12 of colonies given away 4/1/11 - 3/31/12	2	0.2%	3	0.4%	10		8		ļ	
	Fotal dead out colonies (after lost # adjusted for	3	0.4%	4	0.5%	15	2.7%	19		†	
sol	d & given away locally)	327	40.0%	336	39.4%	228	41.4%			 	.
# C	Colonies lost by "Professionals"	34	32.7%	25	19.4%	3	3.4%			 -	·:
# o	of Colonies lost by "Hobbyists"	298	40.1%	318	44.9%	240	53.1%	1			
Col	onies Lost by 2012 Pollen Project Mapping Location									 -	-
1 (9	Southern Marin) (56/158)	28	35.4%	40	31.3%					<u> </u>	
2 (9	San Anselmo west to Inverness) (51/143) 101 Central Marin Corridor) (164/362)	35 32	35.7% 45.3%	43 29	42.7% 41.6%	1				†	+
4 (1	Novato) (29/57)	17	50.9%	12	30.6%					‡	
0 (outside Marin) (32/75)	11	42.7%	14	47.6%					!	.
										‡ ‡	-
	TE: Remaining Questions were optional and may not ect responses of all participants.									!	1
Wh	en Lost:									+ 4	
	oril - June	15	5.4%	13	4.4%	19			2.2%	3	1.7
	ıly - September ctober - December	39 144	13.3% 49.0%	42 131	14.1% 44.0%	23 92			13.0%	18 91	10.4
Ja	nuary - March	76	25.9%	102	34.2%	71			35.5%	54	31.2
Ur	nknown when	20	6.8%	10	3.4%	3	1.4%	0	0.0%	0	0.0
1						<u>t</u>				 	<u> </u>
										<u> </u>	
Soi	urce of Lost colonies:				1		% by source			}	-
	13 Package:	19	47.5%				Jource			‡	-i
	13 Swarm (May/June)	70	57.9%								

			ı	1			,			
2013 colony Splits/Division () 2013 Bonnie Bee & Co. Nuc	59 16	40.4% 32.7%							 	÷
2013 Nuc (except Bonnie Bee & Co.)	11	50.0%							†	·†
2013 colony from local beekeeper	3	17.6%							<u> </u>	::
2013 Colonies sold to a local beekeeper	2								<u> </u>	
2013 colonies given away to local beekeepers	3									. ;
2013 Combined colonies 2013 other	28 13	50.0%							ļ	.
2012 Package:	5	30.0%	35	68.6%					i	÷
2012 Swarm (May/June)	10		59	45.7%					+ !	·
2012 Swarm (July & After)	3		8	38.1%					:	
2012 colony Splits/Division ()	25		34	28.6%					I	.i
2012 Bonnie Bee & Co. Nuc	3		11	31.4%					<u> </u>	
2012 Nuc (except Bonnie Bee & Co.)	1		12	38.7%					<u> </u>	
2012 Colony from local beekeeper	1 0		3	27.3% 100.0%	-				 	.
2012 Colonies sold to a local beekeeper 2012 colonies given away to local beekeepers	1		3 4	100.0%					 -	· <u></u>
2012 Combined colonies	2		12	100.070					<u>:</u>	· · · · · · · · ·
2012 other	3		36	100.0%					†	·;
Feral colony under observation ()	0		6	37.5%	0		6		2	
2011 Package (Hobbyists):	5		7		34				<u> </u>	.‡
2011 Package (Professional) ()	 				2	4.8%			 	.¦
2011 Swarm (Hobbyists) (May/June)	 4		21		40	42.3% 25.0%			 	.
2011 Swarm (Professional -May/June) 2011 Swarm (Hobbyist - July & After)	+		0		8				†	· }
2011 Swarm (Professional - July & After)			U		0	0.0%			 	+
2011 colony Splits/Division (Hobbyist)	1		5		36				†	†
2011 colony Splits/ Division (Professional)					0				T	Ţ
2011 Old Sol Nuc (Hobbyist)			2		21	80.8%			ļ	
2011 Old Sol Nuc (Professional)	$oxed{\Box}$				2	66.7%			ļ	
2011 Nuc (except Old Sols - hobbyists)	2		1	-	7	53.8%		ļ	 	.
2011 Nuc (except Old Sols - professionals) 2011 colony from local beekeeper	┼──┼		0	1	1	25.0%	1		-	÷
2011 Colony from local beekeeper 2011 Colonies sold to a local beekeeper	+		0	 	10	50.0% N/A	1		.	÷
2011 colonies sold to a local beekeeper 2011 colonies given away to local beekeepers	† †		0	1	15		1		 	÷
2011 Combined colonies	2		4	l	8				I	1
2011 other	2		0		8	3			 : 	
2010 Package		-	2		2		44	86.3%	55	78.6
2010 Swarm (May/June)	ļ		2		7	,	13	26.0%	į	
2010 Swarm (July & After)	ļ				3		17	65.4%	41	55.4
2010 Nuc (except Zias) 2010 Zia Nuc	 		1		2		15	55.6%	9	36.0
2010 Zia Nuc 2010 colony from local beekeeper	+		2		2		15	28.6%	9	100.
2010 colony Splits/Division			0		3		5	18.5%	7	33.3
2010 Combined colonies	1		1		0)	5		-	
2010 other			8		1		5	62.5%	18	300.
2009 or prior Package	ļ				0)	7		i	
2009 or prior Swarm (May-June)	 				5	i	3		i	
2009 or prior Swarm (July or after)					(see above)		1		:	
2009 or prior Combined colonies					above))	1		See	above
2009 or prior Nuc	1				0)	0			
2009 or prior colony from local beekeeper					0)	1]	
2009 or prior colony Splits/Division					0		2		ļ	
2008 or prior package	 						2		6	
2008 or prior swarm 2009 Other	 						1		5	
2008 or prior nuc	+				 	 			4	·
2008 or prior from local beekeeper	i i					100000	2		2	·
2009 Combined colonies	1								1	· · · · · · ·
2008 or prior combined with another colony					1:4:4:4	19:9:9:			1	
2008 or prior colony split/division					.:.::	11-1-1-			1	
Other	igspace				2		1		ļ	
# Real/congre who planned an acquiring area in 2011	70	E0 E0'	0.5	60.10		74 401		CO 70:		
# Beekeepers who planned on acquiring more bees in 2014 # Beekeepers not planning on acquiring more bees in 2014	72 44	58.5% 35.8%	85 24	69.1% 19.5%	65 23			59.7%	60	69.
# beekeepers not planning on acquiring more bees in 2014 # beekeepers who did not respond	7	5.7%	24 14	19.5%	23	3.3%	1/	7 9%	21 5	24. 5 s
The fact topolia	 	5.770	i			3.370	l		<u> </u>	
									<u> </u>	
			#	l	responden			:		1
% Loss by experience level:	# respondents	% losses	respondents	% losses	ts	% losses		FC C01	respondent	5 % lo
1 year (16/54) 2-9 years (259/617)	21 84	29.6% 42.0%	29 89	29.0% 42.8%	15 78		22	20.6%	34 34	51.
10+ years (57/124)	18	46.0%	20	42.8%	12		40 8	60.0%	18	
, , ,	10	70.070	<u> </u>	, 5.5 /6	12	33.770	ľ		1	
			#							1
4 Age of hive equipment for lost colonies:		** ***	respondents	% losses		F0.0:		F0 0	respondent	: % lo
1-2 years (135/306) new (93/198)	37 18	44.1% 47.0%	37 23	42.9% 35.1%	23		23	53.0%	18	59.
Combination of new and old (159/299)	24	53.2%		43.1%	19		12	48 30/	20 17	50
3+ years (149/280)	33	53.2%		32.4%	20		9	54.2%	17	58
									‡±: -	
			#		responden		responden		į	1
Equipment used in colonies:	# respondents	% losses	respondents	% losses	ts	% losses	ts		respondent	
Other (misc) (37/134)	13	27.6%	8	22 10/	5	30.401	9	E7 10'	17	·
Entrance feeder (76/225) Trucking of colonies/moving colonies (9/25)	43 7	33.8% 36.0%	34 7	33.1%	25		22	57.1% 0.0%	17	÷
Queen excluders (90/246)	31	36.6%	29	41.1%	25		27			60
Screened bottom boards - open in winter (123/314)	49	39.2%	54	49.4%	41		28		43	51.
Hive top feeder (129/317)	51	40.7%	50	30.1%	44		34	59.3%	32	
Smoker (314/761)	111	41.3%		40.6%	78	43.1%	63	50.9%	73	
Entrance reducer (319/768)	108	41.5%	107	40.2%	71		59	41.9%	68	54.
I Follower heards (22F/F12)	69	43.9%	68	36.2%	49		39	55.3%	41	51.
Follower boards (225/513)			61	46.3%	33	41.8%	38	57.2%	27	63.
Wax foundations (176/401)	60	43.9%					~ ~	40 60	25	
Wax foundations (176/401) Screened bottom boards - closed in winter (222/504)	57	44.0%	63	43.9%	40	34.1%	33	48.6%	35	
Wax foundations (176/401)			63 65			34.1% 50.2%	33 40 13	48.6% 49.7%	35	50.

	N (1 (101/01E)	25	47.00/						10.00		,
	No feeder (101/215) Pollen trap	25	47.0%	44 1	34.2%	16	21.7%	16	48.6%	21	ļ
	Propolis trap	0		1		0		0	68.0%	1 0	<u> </u>
	Tropons trap	Ĭ		-		, i				<u>-</u>	ļ
				#							
6	Storage of supers:	# respondents	% losses	respondents	% losses						ļ
	Freezer (3/14)	7	21.4%	6		2		2		5	ļ
	Other (in garage, in bags, on hives w/honey, in shed, in cool basement, etc.) (97/243)	35	39.9%	20	33.3%	23	57.1%	18		20	į
	With mothballs (54/126)	12	42.9%	14	56.8%	11		18		6	ļ
	Outside with sufficient light and air flow to discourage wax	12	72.370	14	30.870	11	44.370	0			ļ
	moths (174/400)	59	43.5%	67	40.8%	42	37.1%	34		31	
	Inside after freezing (52/81)	11	64.2%	12		7	45.5%	7		8	
											[
				#							
_/	Honey extracting equipment:			respondents							.
	YES, share extracting equipment NO, do not share extracting equipment	52 62		61 60		48 37		38 31		42 34	-
	NO, do not share extracting equipment	02		- 00		37		31		34	·
				#		responden		responden			ļ
8	Variety of bees:			respondents	% losses	ts	% losses	ts	% losses	respondent	s % losses
	Carniolan (64/185)	37	34.6%	39	39.3%	31		28	61.7%	26	51.2%
	Russian (72/194)	10	37.1%	10	27.0%	7	54.8%	5	51.5%	3	<u>;</u>
	Other (misc: splits, swarms, feral,bonnie bee, sonoma stock,										1
	etc) (51/126)	16	40.5%		54.8%	11		10	56.5%	7	ļ <u></u> -
	Italians (114/258) Unknown (218/464)	34 63	44.2% 47.0%	49 62	43.4% 32.6%	32 37		35 29	56.8%	46	50.7%
	MN Hygenic	0	47.0%	1	32.0%	3/	52.3%	29		30	
	Caucasian	0		0	1	N/A		0		1 1	
				İ	İ	.,					
				#							
9	Requeening:			respondents	% losses						ļ
_	Yes: Timing Varies (84/290)	15	29.0%	18	54.9%	12		6			ļ
-	No (232/536)	98	43.3%	100	32.0%	70		56			;
_	Yes: Annually (6/24) Yes: Every other year (1/11)	2		2 1	 	3		3			}
	ies. Every Other year (1/11)	1		1	1	1		3		<u> </u>	ļ
				#	1	responden		responden		<u> </u>	<u> </u>
10	Feeding:			respondents	% losses	ts	% losses	ts	% losses	respondent	% losses
	Honey B Healthy (8/33)	5	24.2%	5		3		4	43.8%	3	1
	Pollen Patties (114/344)	42	33.1%	40	28.3%	27		15	56.0%	13	42.0%
	Sugar (151/393)	65	37.9%	64	43.9%	63		52	51.1%	60	48.4%
	Drivert Sugar (189/498)	42	38.0%	40	31.9%	19	37.0%				.
	Pollen substitute (58/123) Honey (109/219)	8 20	47.2% 49.8%	10	22.00/	3	F2 70/	10	66.7%	1	44.404
	Other (None = 19/34)	10	49.8% 55.9%	20 14	33.8% 46.0%	13	53.7%	10	55.8%	16	44.4%
	High fructose corn syrup (1/11)	10	33.570	0	40.0%	1		0	40.070	2	<u></u>
	riigh ridecose com syrap (1/11)	-		- u							
				#		responden		responden			ļ
11	Identifiable pests and diseases			respondents	% losses	ts	% losses	ts		respondent	
	Deformed Wing Virus (145/388)	32	37.4%	22	43.2%	19		12		16	
	Chalkbrood (111/268)	13	41.4%	16	36.9%	12		1		8	. .
	Varroa mites (293/706)	83	41.5% 44.7%	92	40.8%	62 13		46 12	53.9%	56	50.0%
	Wax moths (183/409) Ants (239/520)	34 53	44.7%	22 62	32.5% 41.2%	39		42	39.7%	14 43	51.1%
	Small Hive Beetle (21/43)	4	48.8%	6	41.270	1	33.670	42	33.770	42	30.270
	None (17/34)	11	50.0%	13	53.7%	N/A		9	47.1%	11	61.1%
	Nosema (53/77)	3		5		3		6	50.6%	3	
	Other (yellowjackets, phorid fly, blue jays, uncertain)	8		4		1		3		[
	American Foulbrood (AFB) ()	0		3		3		0		1	[
	Euoropean Foulbrood (EFB)	0		1							
	Tracheal Mites	0		1		1		1		1	
	Yellowjackets	1		1		N/A		0		3	
-	Stonebrood Sacbrood	0		0	1	1		0		3	
-	Jachiood	U		U		0		0		1	†
				1	1	1				<u> </u>	!
		1		#				responden			!
12	Treatments used in colonies:	# respondents	% losses	respondents	% losses			ts	% losses	respondent	. % losses
	Formic Acid (Mite Away Quick Strips) (73/239)	20	30.5%	23	27.6%	15	28.5%				
	Oxalic acid (64/186) (note: prior to 2014 survey, Oxalic was		24.00	1	1	Ī					:
_	included in general "other" category) Apiguard (13/35)	8	34.4% 37.1%	_	 	_		_			}
	Apiguard (13/35) Cinnamon (32/86)	5 8	37.1% 37.2%	0 4	1	7	51.6%	2		1	
	Thymol (14/37)	2	37.2%	2		1		1		1 3	ļ
	None (207/414)	74	50.0%	84	49.1%	60		46	51.2%		51.9%
	Essential oils (63/111)	5	54.8%	3	L	4		4		5	,
	Peppermint (54/85)	4	63.5%	3		2		1		3	
	Grease Patties (25/39)	4	64.1%	3		1		3		4	
	Other (Tanglefoot for ants, Hopguard, sprigs of			1	1	Ī					}
_	thyme/lavender, citrus acid, Taktic, cinnamon around base)	8		13	20.22	4	40.00	4		3	
-	Powdered Sugar (6/12) Formic acid (Mite Away II)	2		8	30.0% 25.0%	12	13.0%	9	68.8%		83.7%
	Checkmite (coumaphos)	0		5 1	25.0%	3		1		4	ļ
	Fumigilan B	1		0		1		1		1	ļ
	Fumidil	0		0	İ	1		0		1	:
	Apistan	0		0		0		1		1	
	Mothballs	1		0		0		0		1	
											, <i></i>
13	Method for monitoring for varroa mites										;
	Sugar roll (115/315)	21	36.5%								ļ
	24 hour monitoring board counts (117/292)	34	40.1%	ļ	ļ					ļ	ļ
	Nothing (146/289)	55	50.5%	ļ	ļ						.
_	Alcohol wash (12/45)	2		1	1						ļ
	Other (screened bottom board, sporadic inspection, not much, etc.)	13		1	1	1					:
-	much, etc.)	12		 	 					 	<u> </u>
						1				 	!
14	When monitoring for varroa mites occurs	1								 !	:
-											

T				1						
January (12/42)	6	28.6%							.	i
December (17/48)	6								-	ļ
February (20/52)	8								<u> </u>	ļ
August (142/355)	31								<u> </u>	:
Varies based on beekeepers available time (117/290)	23	40.3%							<u>.</u>	
October (134/329)	27								i L	i
September (169/410)	36								<u> </u>	!
June (73/174)	17								<u>:</u>	!
July (93/219)	23	42.5%							I	[
November (91/214)	14	42.5%							:	!
March (29/66)	10	43.9%								:
May (75/160)	16	46.9%								[
April (90/185)	16	48.6%							Ţ	!
I don't monitor (88/178)	53								<u> </u>	¦
Varies based on conditions (100/199)	18								<u>:</u>	:
varies sused on conditions (200) 2337	10	50.570							-	i
									<u> </u>	!
			#				responden		:	:
15 Characterization of 3 miles surrounding colonies:	# respondents	% losses	respondents	% losses			ts	% losses	respondent	
Town: population 1,000-24,999 (199/524)	67	38.0%	74	36.2%	49	57.6%	46	46.2%	47	53.3%
Open Space (mixed use) (179/424)	52	42.2%	51	39.8%	40	36.0%	25	57.1%		48.5%
City: population 25,000-99,999 (164/403)	37	40.7%	31	34.8%	30	31.4%	12	50.0%		70.5%
Wilderness (102/246)	20	41.5%	12	39.7%	7	61.0%	4	71.4%		
Farmlands (66/155)	11	42.6%	9	29.6%	7	19.6%	4	63.6%		!
Agricultural (30/88)	8	34.1%	9	17.2%	7	53.3%	2	0.0%		1
Other (misc) (10/30)	7		8	36.4%	5	60.7%	7	66.7%		!
City: population 100,000-249,999 (23/35)	7		8	51.5%	2	0017 70	2	60.0%		
City: population 250,000 - 499,999 (2/7)	2	0317 70	4	51.570			_	001070	† <u>-</u>	ļ
City: population 500,000+ (1/4)	1		3		1		0	N/A	5	<u> </u>
Gity: population 500,000 (1/4)							8	14/75	† <u>-</u>	÷
			#	%						
16 Breeding for survivor stock	# respondents	% respondents	respondents	respondents						1
# of participants who do not plan on obtaining bees from										:
sources outside Marin County this year.	82	66.7%	84	60.9%	58		32		24	į
I plan on splitting my hives this year.	71		78	56.5%	47	51.1%	28	36.8%		1
(In 2011, # who planned on obtaining bees from Old Sol)	, , ,	0.0%	,,,	50.570	.,	51.170	15	50.070	+	i
I am obtaining bees from sources outside Marin County this	i	0.070		İ			- 13		 	1
vear.	11	8.9%	26	18.8%	18		18		1	į
(In 2011, # who planned on getting bees from outside Marin		0.570	20	10.070	- 10		- 10		 -	ĺ
in 2011, but not in 2012)	1	0.0%					10		21	:
I will be obtaining bees from sources outside Marin County	1	0.070		i			10		ļ 21	!
this year, but plan to do splits or obtain bees from inside									1	10
Marin County in the future.		6 50/	4.4	0.00/						#
	70	6.5%	11	8.0%	11 54					2010 Results
I have not used treatments in the past.	/0	56.9%	78	56.5%	54		34		61	
I have not used and do not plan to use any chemical		== ===								010
treatments in my hives.	72	58.5%	79	57.2%	51				 	2
I have used treatments in the past, but plan on stopping this	_								1	1
year/in future.	5	4.1%	5	3.6%	4		6		 	į
I plan on continuing to treat my bees as needed using only										
minimal treatments when symptoms / signs are present.	41		34	24.6%	22		13		12	i
I plan to treat some of my hives, as needed, but not all.	15	12.2%	22	15.9%	12				1	:
I plan on continuing to treat my bees regularly to prevent										!
pests/diseases regardless of whether the bees show										
symptoms/signs of the pests & diseases for which I am										!
treating.	7	5.7%	2	1.4%	1		1		1	i