

Outdoor Hog Production:

Best Practices for Conservation in the San Francisco Bay Area



The following chart contains data compiled from surveys conducted at 10 different outdoor and alternative hog production sites throughout the Greater Bay Area, Northern San Joaquin Valley and Southern Sacramento Valley. Visits were conducted in 2013 and 2014 and used to inform the development of recommendations in this resource guide. Many thanks to the producers who opened their farms and ranches to us.

	Site 1	Site 2	Site 3	Site 4	Site 5
County	Marin/Sonoma	Santa Clara	San Mateo (1)	Stanislaus	Santa Clara
Production System	Farrow to Finish	Farrow to Wean	Wean to Finish	Wean to Feeder	Farrow to Finish
Years raising pigs	20+	7	3	2	6 – depending on current manager
Swine Production Area	30 acres	1/10 acre	200 acres	1/2 acre	10 acres
Breed(s)	Berkshire, Duroc, Old Spot, Gloucester, Yorkshire	Berkshire x	Hampshire, Berkshire, some wild genetics	Duroc, Hampshire, Landrace, Yorkshire	Tamworth, Duroc, Berkshire
HERD					
Boars	5	1	0	1	0
Sows	50	1	0	1	3
Piglets	130	0	0		7
Weaners	150/year	0	0	15/year (none at time of visit)	0
Growers/Finishers	125/125/year	0	50-100/year (none at time of visit)	0	6
Top Hogs	0	0	0	0	6
Gilts	25	0	0	0	0
Weaning Age, Wk	6-8 weeks	n/a	n/a	n/a	8 weeks

Funding provided by the Natural Resources Conservation Service Conservation Innovation Grant # 86-9104-3-179

	Site 1	Site 2	Site 3	Site 4	Site 5
FEED					
Commercial concentrated	X	X (.5 coffee can/day/ animal)	X (50-75%)	X (2-2.5 lbs/day/animal)	X (2 coffee cans/day/animal)
Forage	v. minimal	X purchased	X (25%)	X – grown and purchased	X – grown; ¼ of total feed
Bakery waste	X	X	X	X	X
Restaurant waste					
Culled fruit/ vegetables		X	X	X	X
Whey	X		X (only in am or pm)		
Milk, yogurt, cheese	X				X
Brewer's grains	X		X		
Other			X - Wine pressing, black-berries	X – medicated milk	
Market weight, lb	270	30-40	250-300	40	275-300
MANAGEMENT					
Production System	Drylot & Rotational	Drylot	Rotational/Seasonal	Rotational	Rotational & Drylot
Veg Species	Drylot – very little present; unk for rotational pasture	None present	Eucalyptus woodland; pasture	Irrigated pasture	Cover crop (broad beans, vetch, field peas); wild oat & thistle.
Estimated ground cover, %	10% for drylot; 75% for pasture; 30% oak wldnds; 60% range	0%	n/a	60%	60%
Estimated height, inches	2" for dry lot	n/a	n/a	2"	2.5'
Length of time in paddock	Continuous for drylot; unk for rotational	Continuous	1-2.5 weeks	Depends	2 weeks
Stocking density, hogs/ac	unk	2/.1 acre OR 20 hogs/acre	30 hogs/acre	15/.5 acre OR 30 hogs/acre	6 hogs/.25 acre OR 24 hogs/acre
Rest	Unk	None	1-2 years	Yes, depends on above	1 year
Housing/Shelter	Barns, shelters	Shelter	Natural shade	Shelter	Shelter (Quonset hut, tarp)
Bedding	Y			Y	Y – grass
Feeder	Permanent	Permanent	Mobile	Permanent	Mobile
Waterer	Permanent	Permanent	Mobile	Permanent	Mobile - nipple

	Site 1	Site 2	Site 3	Site 4	Site 5
MARKET					
CSA			X		
Farmers Market	X				X – 75%
Restaurants	X				X – a few
Pig share			X		
Local Butcher/Retailer	X				
Marketed as	Milk fed; Moving towards AWA		Forest-raised, GMO free		
Other		Auction		Craigslist, Auction, 4-H	On-site meat sales
RESOURCE MANAGEMENT					
Erosion	Likely	Likely	Unknown	Y	N
Compaction	Y	Y	Unknown	Likely	Possible
Excess nutrients	Likely	Y	Unknown	Likely	Possible
Sediment in waterway	Unknown	Likely	Unknown	N	N
Nutrients in waterway	Likely	Likely	Unknown	N	N
Excessive Wallows	Y	Y	Unknown	Likely	Limited
Excessive soil disturbance	Y	Y	Unknown	Y	Limited
Loss of Veg Cover (25%)	Y	Y	Unknown	Y	N
Impact to upland plant communities	N	N	Unknown	Likely	N

	Site 6	Site 7	Site 8	Site 9	Site 10
Location	San Joaquin	Mendocino (2)	San Mateo	Yolo	Marin
Production System	Wean to Finish	Farrow to Finish	Wean to Finish	Farrow to Finish	Farrow to Finish
Years raising pigs	10+	5+	4	5+	2
Swine Production Area	15 acres	300 (200 oak wdInd; 100 pasture)	Approx 5 ac – 10 small paddocks (.5-.75 ac)	60	10
Breed(s)	Duroc, Yorkshire	European Wild, Berkshire, Tamworth	Duroc, Hampshire, Berkshire, Black Wattle	Tamworth, European Wild, Hampshire, Yorkshire	Tamworth, Large Black, Berkshire
HERD					
Boars	0	3-4	0	10	2
Sows	0	0	0	61	9
Piglets	0	0	0	20	27
Weaners	0	0	0	0	0
Growers/Finisher	10400	127 (70 108-240 lbs & 60 37-108)	10	300	28
Top Hogs	0	0	0	0	0
Gilts	0	0	0	0	0
Weaning Age, Wk	n/a		6-8 weeks when purchased	8 weeks	8 weeks
FEED					
Commercial concentrated	X	X	X	X – organic, primary feed	X - limited
Forage	X – grown & purchased (oat/straw)	X – grown	X	X – grown	X - grown
Bakery waste			X		X
Restaurant waste					X
Culled fruit/vegetables				X	X
Whey		X	X	X	X
Milk, yogurt, cheese				X – ice cream	X
Brewer's grains			X		
Other		Mash		Okara, wheat	Barley, Rice bran
Market weight, lb	300		250	200	220

	Site 6	Site 7	Site 8	Site 9	Site 10
MANAGEMENT					
Production System	Deep bedded & Cement	Rotational on pasture & continuous on oak wood-land	Rotational/Seasonal	Rotational & Drylot	Rotational, Drylot & Deep Bedded
Veg Species	Oat hay and wheat straw placed in hoops in bales; cement in flush barn	Rye, oat, foxtail, thistle in oak wdInd; rye, orchard, harding grass; soft chess, clover, fescue	Eucalyptus, blackberry, poison oak	Alfalfa, turnip, mixed grasses in rotational/Dirt in drylot	Annual and Perennial Range (velvet grass etc.)
Estimated ground cover, %	100% in deep bedded due to straw	90% pasture; 75% oak wdInd	90%, mostly leaf litter, shrubs	75% in pasture; 5% in dry lot	50%
Estimated height, inches	6-12" deep bedding	6" on pasture; 1' on oak wdInd	n/a	4" in pasture; n/a in dry lot	2" in pasture; n/a in dry lot
Length of time in paddock	100 days in hoop then 30 days in cement	1 week on pasture; stay in oak wdInd all fall	1-2 weeks	3-5 mos on pasture; continuous in drylot	1 wk on pasture for weaners; continuous for sows/boars in drylot breeding areas
Stocking density, hogs/ac	200 hogs/.20 acre OR 1000 hogs/acre	70 pigs/200 acres on oak wdInd OR .35/acre ; 20 pigs/.17 acre in pasture OR 120/acre	10 pigs/.25 acre OR 40/acre	unknown	varies
Rest	none – old hay removed, replaced with new hay and pigs put back in	Rest oak wdInd 4-5 months; several weeks +	Wet-season; Sometimes re-seed.	Pasture: 3 mos; limited rest for non-pasture paddocks	One growing season then reseed and cover with hay
Housing/Shelter	Open-ended hoop barn	Oaks in wdInd; structure in pasture	Natural shade	Pasture: trees; paddocks: shelters; Farrowing: hoop	Shelters in breeding area
Bedding	Y – deep straw/hay until flush barn then limited straw	Grass		In paddocks, not pastures	Straw
Feeder	Dry/wet self-feeder	Mobile	Mobile	Permanent	Mobile and permanent
Waterer	Dry/wet self-feeder	Mobile trough w. float valve and grate	Mobile	Permanent	Mobile

MANAGEMENT	Site 6	Site 7	Site 8	Site 9	Site 10
MARKET					
CSA			X		X
Farmers Market			X	X	X
Restaurants	X - majority	X		X	X
Pig share					X
Local Butcher/Retailer		X		X	
Other	On-site direct sales to individuals (CDFA slaughter on site)	Marketed from ranch; grocery stores		Retail markets	
Marketed as	Antibiotic free				AWA, Organic
RESOURCE MANAGEMENT					
Erosion	N	In sacrifice area	Y	Y	Y in semi-permanent
Compaction	N	In sacrifice area	N or limited	Y	Likely in semi-permanent
Excess nutrients	Possible	N	N or limited	Likely	Likely in semi-permanent
Sediment in waterway	N	N	Possible	Possible	N
Nutrients in waterway	?	N	Possible	Possible	N
Excessive Wallows	N	N	N	Y	N
Excessive soil disturbance	N	In sacrifice area	N or limited	Y	Y in semi-permanent
Loss of Veg Cover	N/A	In sacrifice area	N, though would be desirable given plant mix	Y, primarily in dry lot areas	Y in semi-permanent
Impact to upland plant communities	N/A	In sacrifice area	Y, limited disturbance to poison oak, blackberry and eucalyptus –desired	Yes, some tree damage	Y in semi-permanent