

ANR-0105

Overview and Cost of a Small-scale Aquaponic Build at The Ohio State University

ANR-0105-Table 1. Description and costs of a single South Centers small-scale aquaponic system in 2018*.

Company	Part #	Quantity	Price (each)	Total Cost	Description
PolyTank Co.	SST 4222	1	\$260.00	\$260.00 ^a	180-gallon fish tank
PolyTank Co.	SSS 4222	1	\$186.40	\$186.40 ^a	180-gallon fish tank stand
PolyTank Co.	PD 4902	1	\$450.00	\$450.00 ^a	235-gallon; 4'x8'x1' deep water culture bed
PolyTank Co.	PD 4902S	1	\$400.00	\$400.00 ^a	235-gallon; 4'x8'x1' deep water culture bed stand
PolyTank Co.	PT 304	2	\$140.64	\$281.28 ^a	55-gallon filtration tanks (primary and secondary); 45° bottom angle
PolyTank Co.	PT 304S	2	\$243.00	\$486.00 ^a	55-gallon filtration tank stands (primary and secondary)
PolyTank Co.	PT 614	1	\$140.64	\$140.64 ^a	59-gallon sump; 2'x2'x2'
Pentair	9730	1	\$110.29	\$110.29	50 W air pump
Pentair	MV5	1	\$47.59	\$47.59	5-valve manifold, medium
Pentair	62006	5	\$0.40	\$2.00	1/4" x 1/4" National Pipe Tapered threads x Barb; Polyethylene; connect manifold to airlines
Pentair	TC16	1	\$59.19	\$59.19	Fish tank net covering; fits 5'-6' tanks
Pentair	WP33	1	\$29.86	\$29.86	635-gph submersible pump; 35 Watt
Pentair	U150	4	\$2.69	\$10.76	Uniseals; 1 1/2" pipe
Pentair	BKF1120	4	\$7.15	\$28.60	1 1/2" bulkhead; bottom of fish tank, filters, and culture bed
Pentair	BTV40	1	\$34.17	\$34.17	Black vinyl tubing; 1/4" Inside Diameter (ID) and 0.375" Outside Diameter (OD); connect manifold to air stones
Pentair	BTV70	1	\$61.07	\$61.07	Black vinyl tubing; 1/2" ID and 0.625" OD; connect sump pump to fish tank
Pentair	DB10	1	\$6.19	\$6.19	Diffuser bumpers; pack of 10
Pentair	AS5L	3	\$5.46	\$16.38	Air stones; 3" and 1/4" OD; two in grow bed and one in secondary filter
Pentair	AS15S	2	\$12.45	\$24.90	Air stones; 6" and 1/4" OD; two in fish tank

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Company	Part #	Quantity	Price (each)	Total Cost	Description
Pentair	62064	2	\$0.87	\$1.74	¼" barbed T for airlines
Pentair	FMB2	1	\$70.79	\$70.79	Floating fish measuring board
Pentair	Misc.	5	\$26.13	\$130.65	Fish nets; various sizes; aquarium nets to monorail nets
Johnny's Seeds	9473.0	1	\$29.00	\$29.00	Bird netting added to secondary filter
Amazon ^b		2	\$11.59	\$23.18	1½" Rockwool grow cubes; 48 count
Lowe's ^b		1	\$38.97	\$38.97	2" x 4' x 8' foam board insulation; plant grow bed
Lowe's ^b		6	\$2.71	\$16.26	1½" 90° PVC elbow
Lowe's ^b		2	\$13.46	\$26.92	10' of 1½" PVC
*Please note that prices are likely different now due to COVID-19 and other factors.					
^a Actual cost for OSU in 2018, although this was a special discounted rate for the university.					
^b March 2022 costs.					
Pricing does not include sales tax or freight. Part numbers may have been changed or products may have been discontinued. Cost of the seeds, fish, and fish food are not included.					
Total cost for each aquaponic system excluding sales tax or freight in 2018: \$2,972.83.					