iAVs parameter capture sheet

Your Location (city, nation) [_____]

SIZES

Tank(s)

Field	Value
number	
shape (plan view)	
shape (elevation section)	
location (in/on ground?)	
length	
width	
depth (avg)	
depth (max)	
volume (ea)	
tank (liner) material	

Biofilter(s)

Field	Value
length (ea)	
width (ea)	
depth (avg)	
bottom slope (1:x)	
volume (ea)	
number (ea)	
total filter volume	

Pump(s)

Field	Value
number (per tank)	
type (e.g., centrifugal, diaphram,)	
location (bottom center, corner, external)	
inlet location (bottom, side, suction hose)	
discharge diameter	
discharge restrictions	
total discharge head	
rated load (Watts)	
rated flow capacity	
measured flow at total head	

Notes

describe your situation

Aeration

type (diaphram. rotary vane, other)	
rated volume/minute at depth	
type diffuser(s)	
size of diffuser (ea)	
number diffusers	
depth of diffuser(s)	
locations (bottom, corners, edges)	
airlift tube usage (Y/N?)	

Water heaters

number	
wattage	
temperature maintained	
other heat sources	

Please describe/rate your prior experience with aquaculture.

FISH

Genus and species

or hybrid with

Sex(es)

number stocked/cu m	$N\ m^{-3} =$
size stocked (g)	$P_{mi} =$
target harvest size (g)	$P_{mf} =$
expected growth rate	$gpf/d =$
specific growth rate	$SGR =$
approx. time to harvest	$days =$

Feed source

source (brand/vendor)

crude protein (%)

total fat (%)

fiber (%)

Phosphorus (%)

Vitamins added (?)

elemental assay (Y/N?)

floating pellet (Y/N?)

sinking pellet (Y/N?)

other (?)

different feed for fingerlings (Y/N?)

Feed rate (grow out)

times per day

time(s) of day

different schedule for fingerlings (Y/N?)

initial input rate (gpd)

initial input rate (% biomass)

final input rate (gpd)

final input rate (% biomass)

average rate (gpd/yr)

total input (kg/yr)

Feed conversion ratio $FCR =$

Feed cost (delivered) $/kg

Water
Source(s)

primary source	
pH (initial)	
tests of source (which)	
treatment(s) of source	
rain collection (Y/N?)	
rain storage (volume)	
rain storage (location/type)	

in Situ (tank)

pH (target)	
pH (range)	

Water Testing

frequency (days/wk)	
time(s) of the day	
data, record keeping (Y/N?)	

parameters assayed		method	range
Alkalinity(total)	(avg)		
BOD	(avg)		
DO sat	(avg)		
EC	(avg)		
NO2	(avg)		
NO3	(avg)		
pH	(avg)		
TAN	(avg)		
TDS	(avg)		
NH3+4 from tank, to filter			
NH3+4 filter drainage return			

Utility

primary source electrical energy

>> [   ]

reliability of electric utility service

>> [   ]

back-up energy source (type, capacity)

>> [   ]

OPERATION

Irrigation schedule

times per day	
pump duration (ea)	
volume moved (ea)	
tank exchange/day	
interval between pump cycles	

Please describe/rate your prior experience with horticulture.

PLANTS
Area(s)

total grow bed area	
percent continuously planted	
batch planting (Y/N?)	
staggered planting (Y/N?)	
intercropping (Y/N?)	

Species
leaf crops

typical example(s)	
frequency (months/yr)	
crop duration (avg)	
percent area (typical)	
estimated harvest mass/mo.	

fruiting crops

typical example(s)	
frequency (mo./yr)	
crop duration (avg)	
percent area (typical)	
estimated harvest mass/mo.	

legumes

typical example(s)	
frequency (mo./yr)	
crop duration (avg)	
percent area (typical)	
estimated harvest mass/mo.	

other plants

typical example(s)	
frequency (mo./yr)	
crop duration (avg)	
percent area (typical)	

SAND

Source

(e.g., quarry, dune, river,etc.)	
what did you ask for?	
local name (term) sold	
primary mineral (claim)	
identified contaminants	
cost per cubic meter	
cost of transport	
any screening or washing?	

Testing you've done

fractionation (approx.)   percent

clay and silt	
0.2 to 0.5 mm	
0.5 to 1.0 mm	
1.0 to 1.5 mm	
1.5 to 2.0 mm	

hydraulic conductivity (cm/min)	
pore volume (porosity) (%/vol)	
water retention (% vol)	

sand effect on water pH

pH (into furrow from tank)	
pH (drainage return to tank)	

filter saturation

pump time to achieve sat.	
volume moved to achieve sat.	
time to commence draining	
time to complete draining	
time duration of drained condition	

endemic (local) plant diseases*   Y/N?

bacterial spot *Xanthomonas*	
bacterial wilt *Ralstonia*	
blossom end rot virus	
botrytis fungus mold	
damping off *Pythium, Rhizoctonia*	
early blight *Alternaria*	
Fusarium wilt *Fusarium*	
late blight *Phytophthora*	
leaf spot *Septoria*	
leaf mold *Cladosporium*	
root-knot nematodes	
Southern blight *Sclertium*	
Pseudomonas (bacterial wilt)	
Verticillium wilt fungus	

* Select cultivars with appropriate genetic resistance(s)

Other species observed

algae	types	
molds	types	
snails	types	
worms	types	

insect pests

	anticipated/observed (Y/N?)	Control plan	Plan effectiveness
aphids			
army worms			
cabbage looper/worm			
cutworm/earworm			
fungus gnat			
grasshopper			
harlequin bug			
leaf hopper			
leaf miner			
mealy bug			
psyllids			
sawfly larvae			
scale insects			
spider mites			
squash bug			
thrips			
tomato hornworm			
white grubs			
whitefly			
other			