

## SOS EXECUTIVE

### PRESIDENT:

Sherida Gregoire

### VICE PRESIDENT:

### PAST PRESIDENT:

Faith Prodanuk

### SECRETARY:

Laurel Duczek

### TREASURER:

Heather Anderson

### SOCIAL DIRECTORS:

Jocelyn D'eon  
Shirley Keith

### PLANT ORDERS:

Cheryl Adamson  
Heather Anderson

### RESOURCES:

Bob Farthing  
Yvette Lyster

### LIBRARIANS:

Ellen Ross  
Don Keith

### NEWSLETTER:

Bob Lucas  
Dave Robinson

### AOS REPRESENTATIVE:

Matthew Sackville

### COC REPRESENTATIVE:

Al Hartridge

### VISITING SPEAKERS:

Eugene Kucey

### WEBMASTER:

Jennifer Burgess

## MAILING ADDRESS

SASKATCHEWAN  
ORCHID SOCIETY  
Box 411  
SASKATOON, SASK  
S7K 3L3

## WEB ADDRESS

[WWW.SASKORCHIDS.COM](http://WWW.SASKORCHIDS.COM)

## ANNOUNCEMENTS

### EDITOR'S NOTE

THE NEWSLETTER WILL BE DISTRIBUTED ELECTRONICALLY TO ALL MEMBERS FOR WHOM WE HAVE AN EMAIL ADDRESS. IF YOU WISH TO SWITCH FROM PAPER TO ELECTRONIC DELIVERY, NOTIFY ME AT ([ROBERT.LUCAS@USASK.CA](mailto:ROBERT.LUCAS@USASK.CA)). EMAIL ME IF YOU HAVE NOT RECEIVED YOUR ELECTRONIC NEWSLETTER BY THE THIRD SUNDAY OF THE MONTH.

### MAY MEETING

THE MAY MEETING OF THE SOCIETY WILL BE HELD ON MAY 25<sup>TH</sup> AT DUTCH GROWERS, COMMENCING AT 1:30 P.M.

### MEMBERSHIP RENEWAL

AS IN THE PAST THERE WILL BE AN INCENTIVE PROGRAM IN EFFECT DURING THE MAY MEETINGS. IF YOU RENEW YOUR MEMBERSHIP AT THIS MEETING, YOU WILL BE ELIGIBLE FOR A \$5.00 COUPON THAT CAN BE REDEEMED AT THE SUPPLIES TABLE.

### MEETING PRESENTATION

CHERYL AND HEATHER WILL GIVE A POWER POINT PRESENTATION AT THE MAY MEETING ON THE 19<sup>TH</sup> WOC HELD IN MIAMI IN JANUARY, 2008.

### LIBRARY AND SUPPLIES

AS THE MAY MEETING IS THE LAST MEETING OF 07-08, WE ASK THAT YOU RETURN ALL LIBRARY MATERIAL AS BOOKS ARE NOT TO BE KEPT OUT OVER THE SUMMER. ALSO PICK UP ANY SUPPLIES THAT YOU MIGHT NEED FOR THE NEXT FOUR MONTHS.

### PLANT ORDERS

WE WILL BE PLACING TWO PLANT



ORDERS AFTER THE SEPTEMBER MEETING WITH FOREST VIEW GARDENS OF SURREY, B. C. AND CARMELA ORCHIDS OF HAWAII. TERRY GROSEIBL OF FOREST VIEW VISITED US LAST YEAR AND HE BROUGHT SOME VERY NICE PAPHS. CHECK OUT HIS CATALOGUE AT [WWW.FVGARDENS.COM](http://WWW.FVGARDENS.COM). THE CARMELA CATALOGUE IS AVAILABLE AT [WWW.CARMELAORCHIDS.NET/](http://WWW.CARMELAORCHIDS.NET/). THE DEADLINE FOR ORDERS WILL BE THE SEPTEMBER MEETING TO ENSURE THEY ARE SHIPPED BEFORE WINTER.

### CYPRIPEDIUM EXCURSION

A GROUP WILL BE TRAVELING TO THE PIKE LAKE AREA ON SUNDAY, JUNE 22<sup>ND</sup> TO VIEW CYPRIDIUMS IN SITU. WE WILL MEET AT THE PETLAND STORE IN CONFEDERATION PARK MALL AT 2:00 P. M. AND THEN DRIVE TO THE LOCATION. THERE WILL BE SUFFICIENT CAPACITY TO OFFER RIDES TO ANYONE WHO DOES NOT WISH TO DRIVE OUT OF THE CITY.

### FOOTHILLS SHOW

THE FOOTHILLS ORCHID SOCIETY SHOW WILL BE HELD IN CALGARY ON OCTOBER 3-5. THE SOCIETY WILL BE ENTERING A DISPLAY AT THE SHOW AND WE WILL NEED MEMBERS BLOOMING PLANTS,

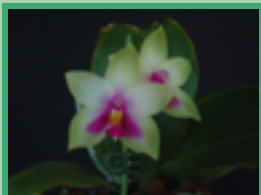
### SUMMER NEWSLETTER

THERE WILL BE A SPECIAL EMAIL



PHAL BEDFORD GEM

*SPECIAL PHOTO  
ISSUE OF THE NEWS-  
LETTER: DEADLINE  
FOR SUBMISSIONS IS  
AUGUST 24<sup>TH</sup>, 2008*



PHAL BELLINA

ISSUE OF THE NEWSLETTER IN LATE AUGUST, THIS SPECIAL ISSUE WILL PROVIDE MEMBERS WITH A FORUM TO DISPLAY PICTURES OF PLANTS THAT BLOOM OVER THE SUMMER. IF YOU HAVE A PLANT THAT YOU WOULD LIKE TO ENTER IN THE NEWSLETTER, SEND A JPG PHOTO TO THE EDITOR BY AUGUST 24<sup>TH</sup>

### MEETING AGENDA

- ANNOUNCEMENTS
- PROBLEM CORNER
- SHOW AND TELL
- COFFEE/SUPPLIES
- WOC POWER POINT
- PLANT RAFFLE AND SALE
- ADJOURNMENT

## APRIL 27<sup>TH</sup> MEETING MINUTES

THE PRESIDENT WELCOMED GUESTS AND NEW MEMBERS. APRIL IS THE SOS'S ANNUAL GENERAL MEETING AND IT INCLUDES THE ELECTION OF THE SOCIETY'S EXECUTIVE.

### ANNOUNCEMENTS

**PLANT ORDERS** - THE CLUB ORDER FROM ORCHID INN WAS RECEIVED AND DISTRIBUTED. THE EXPECTED SHIPPING DATE FOR THE ORDER PLACED WITH HAUSERMANN'S ORCHIDS HAS NOT YET BEEN CONFIRMED.

**GARDENSCAPE** - THE PUBLIC FOUND THE DISPLAY DESIGN AND ORCHID PLANT ARRANGEMENTS VERY INTERESTING. THERE WERE LOTS OF COMPLIMENTS. TAKE DOWN WENT VERY WELL AND EVERYTHING WAS CLEANED UP QUICKLY. SPECIAL THANKS TO JAMES SATHER AND SHIRLEY KEITH FOR ORGANIZING THE DISPLAY AND FOR ALL THE HARD WORK THEY AND OTHER MEMBERS DID. THANK YOU TO ALL THE VOLUNTEERS THAT TOOK TURNS MANNING THE DISPLAY. IT WAS GREATLY APPRECIATED. BOB LUCAS, HEATHER ANDERSON, YVETTE LYSTER AND CHERYL ADAMSON DID A GREAT JOB PRESENTING BASIC ORCHID CARE. ABOUT 50 PEOPLE ATTENDED THE DEMONSTRATION.

**MEMBERSHIP RENEWAL** - IT IS TIME TO RENEW MEMBERSHIPS FOR THE

SEPTEMBER 2008 TO MAY 2009 MEMBERSHIP YEAR. FOR EARLY RENEWALS MADE IN APRIL OR MAY 2008, WE ARE OFFERING \$5.00 COUPONS TO BE USED FOR RESOURCES/SUPPLIES. THE COUPON EXPIRY DATE WILL BE JANUARY, 2009.

**JUNE TRIP** - THE LOCATION AND DATE OF A TRIP TO SEE NATIVE LADY SLIPPERS IS STILL UNCONFIRMED. PLANS WILL BE SHARED AS DETAILS ARE ARRANGED.

**EXECUTIVE ELECTIONS** - IT IS WITH REGRET THAT WE ANNOUNCE THAT JAMES SATHER HAS OTHER COMMITMENTS THAT WILL REQUIRE HIS TIME AND HE HAS DECIDED NOT TO STAND FOR RE-ELECTION. WE WANT TO RECOGNIZE HIS CONTRIBUTIONS TO THE SOCIETY AND THE EXECUTIVE. THE NOMINATION SLATE FOR EXECUTIVE POSITIONS IS AS FOLLOWS:

POSITION	NOMINEE(S)
PRESIDENT	SHERIDA GREGOIRE
VICE PRESIDENT	VACANT
SECRETARY	LAUREL DUCZEK
TREASURER	HEATHER ANDERSON
SOCIAL DIRECTORS (2)	JOCELYN D'EON; SHIRLEY KEITH
PLANT ORDERS (2)	CHERYL ADAMSON, HEATHER ANDERSON
RESOURCES (2)	BOB FARTHING, YVETTE LYSTER.

LIBRARY (2) ELLEN ROSS; DON KEITH  
 NEWSLETTER (2) BOB LUCAS; DAVE ROBINSON  
 AOS REPRESENTATIVE MATTHEW SACKVILLE  
 COC REPRESENTATIVE AL HARTRIDGE  
 VISITING SPEAKERS EUGENE KUCEY  
 WEB MASTER JENNIFER BURGESS

NOMINATIONS WERE INVITED FROM THE FLOOR. NO ADDITIONAL NOMINATIONS WERE MADE. THE MOTION TO ACCEPT THE NOMINATION SLATE WAS MOVED BY FRED MEYER. MOTION SECONDED BY GABRIELE BURMEISTER. THE VOTE ON THE MOTION CARRIED. MEMBERS INTERESTED IN NOMINATING SOMEONE OR IN BECOMING THE NOMINEE FOR THE VICE PRESIDENT POSITION SHOULD CONTACT THE PRESIDENT.

MAY MEETING - MAY 25 WILL BE THE LAST MEETING OF THE 2007-2008 MEMBERSHIP YEAR. THERE WILL BE A POWERPOINT PRESENTATION ON THE LAST WORLD ORCHID CONGRESS THAT SEVERAL SOCIETY MEMBERS ATTENDED. REMEMBER TO STOCK UP ON SUPPLIES FOR THE SUMMER. THE 2008-2009 MEETING YEAR WILL START IN SEPTEMBER.

#### PROBLEM CORNER

A PAPHIOPEDILUM HAS RUSTY-BROWN SPOTS NEAR THE BASE OF LEAVES.

SUGGESTIONS: THE SPOTS ARE PROBABLY A FUNGAL INFECTION AS THEY HAVE STAYED LOCAL (BACTERIAL INFECTIONS GET SOFT AND SPREAD RAPIDLY). LEAVES WERE LIKELY EXPOSED TO MOISTURE DURING WATERING AND DID NOT DRY FAST ENOUGH. POWDER THE SPOT WITH CINNAMON OR CREATE A

CINNAMON PASTE USING A BIT OF WATER TO GET THE CINNAMON TO STICK ON THE PLANT. WHERE THE INFECTION IS NEAR THE MAIN SHAFT OF THE PLANT, PULL OFF THE LEAVES AND TREAT THE EXPOSED ENDS. SULPHUR OR OTHER GARDEN PRODUCTS FOR TREATING FUNGAL INFECTIONS COULD BE TRIED.

A PHALAENOPSIS DEVELOPED YELLOW SPOTS ON THE OLDER LEAVES. THE PLANT IS GROWN IN A SOUTH WINDOW.

SUGGESTIONS: SOME ARTICLES SUGGEST THAT CULTURAL SHOCK DUE TO COLD EXPOSURE MAY CAUSE SPOTTING. THE DAMAGE OCCURS PRIOR TO THE EMERGENCE OF THE NEW LEAVES AND THE SPOTS DEVELOP AS THE LEAVES GROW AND AGE. SOME PLANTS ARE MORE SENSITIVE TO COLD THAN OTHERS DUE TO THE GENETIC BACKGROUND OF THE HYBRID

A PHALAENOPSIS HAD SILVERY SCARRING ON THE LEAVES. IT HAS BLOOMED AND WAS TRANSPLANTED. IT WAS GROWN IN AN EAST WINDOW WITH SHEER CURTAINS. RAINWATER IS USED FOR WATERING. LEAVES WERE WIPED WITH A VINEGAR SOLUTION.

SUGGESTIONS: THIS IS DIFFERENT THAN THE PLANT PREVIOUSLY DISCUSSED AS THE MARKS ARE A DIFFERENT COLOUR AND THEY ARE NOT SOFT. THE ORCHID APPEARS TO BE PLANTED TOO DEEP WHICH MAY BE CAUSING SOME STRESS. VINEGAR SOLUTIONS COULD BURN THE LEAVES.

A NEW LEAF FROM A PAPHIOPEDILUM SUDDENLY WENT BLACK



PHAL SUN JE  
DIAMOND



FROM THE TIP CONTINUING BACK SEVERAL INCHES ALONG THE LEAF.

SUGGESTIONS: THE CAUSE COULD BE CULTURAL IF THE AIR IS VERY MOIST AND THERE IS NOT ENOUGH AIR MOVEMENT. USE A STERILE KNIFE OR RAZOR BLADE TO REMOVE THE DISEASED TISSUE. MAKE YOUR CUT ABOUT 1 INCH BELOW THE BLACKENED AREA IN THE GREEN AND HEALTHY LOOKING TISSUE TO ENSURE THAT THE DISEASED TISSUE HAS BEEN REMOVED. USE CINNAMON OR SULPHUR TO TREAT THE END.

A CATTLEYA IS DROPPING LEAVES ON PSEDOBULBS EVEN THOUGH A FLOWER SHEATH HAS BEEN PRODUCED. THE PSEDOBULB BECOMES BLACK JUST BELOW THE FLOWERS.

SUGGESTIONS: THE BLACK SPOTS ARE FUNGAL INFECTIONS. THEY MIGHT BE CAUSED BY LACK OF NUTRIENTS. SOME CATTLEYAS ARE SUSCEPTIBLE TO THIS TYPE OF INFECTION. CUT OFF AS MUCH AS YOU CAN AND TREAT IT WITH CINNAMON OR SULPHUR.

SEVERAL PHALAENOPSIS ARE GROWN ON A LIGHT STAND. THE LEAVES ARE TURNING RED. IS THIS FROM TOO MUCH LIGHT OR LACK OF POTASSIUM? THE LIGHTS ARE ON

14 HOURS IN A DAY.

SUGGESTIONS: SOME PLANTS WITH DARK PURPLE FLOWERS WILL NATURALLY HAVE MORE RED COLOURATION IN THEIR LEAVES. OTHER PLANTS TURN REDDISH OR "BURN" WITH TOO MUCH LIGHT. TRY DECREASING THE LENGTH OF THE LIGHT CYCLE.

SHOW AND TELL

BOB LUCAS, CHERYL ADAMSON, HEATHER ANDERSON, DONNA CARLSON-O'KEEFE, BOB FARTHING, SHERIDA GREGOIRE, ELLEN ROSS, JAMES SATHER, DON KEITH AND FRED MEYER.

GUEST SPEAKER – TERRY LETENDRE

PLANT RAFFLE

DONATED BY TERRY LETENDRE: BULB. ELIZABETH ANNE BUCKLEBERRY FCC/AOS WON BY MARY ORCHARD AND ALCRA DOROTHY OKO 'OKA', WHICH WAS IN BUD, WON BY CHERYL ADAMSON.

PLANT SALE

ADJOURNMENT

## WEB PAGE OF THE MONTH

EACH MONTH WE WILL FEATURE A WEB PAGE. IF YOU HAVE A FAVORITE, SEND IT TO THE EDITOR. THIS MONTH'S FEATURE, COURTESY OF RON KAUFMANN OF THE ORCHID DIGEST, IS:

[WWW.ORCHIDSPECIES.COM](http://WWW.ORCHIDSPECIES.COM)

THIS SITE MAINTAINED BY JAY PFAHL

INCLUDES INFORMATION ON ABOUT 8000 SPECIES IN OVER 700 GENERA. IT IS ORGANIZED ALPHABETICALLY BY GENUS AND SPECIES, THE SPECIES PHOTO ENCYCLOPEDIA IS A TREASURE TROVE OF INFORMATION ON FLOWERING HABITS AND CULTURAL REQUIREMENTS ALONG WITH PHOTOGRAPHS.

## LET THERE BE LIGHT PART II

BY BOB LUCAS (SEE THE APRIL, 2008 ISSUE FOR PART I)

IN PART I, I DISCUSSED THE TWO PROPERTIES OF LIGHT THAT ARE MOST IMPORTANT FOR ORCHID GROWERS, LIGHT SPECTRUM AND LIGHT INTENSITY. SINCE PLANTS EVOLVED SO AS TO USE SUNLIGHT MOST EFFICIENTLY, IT FOLLOWS THAT THE BEST ARTIFICIAL LIGHT IS THAT WHICH MOST CLOSELY DUPLICATES THE SPECTRUM AND INTENSITY OF SUNLIGHT. UNFORTUNATELY, ALL ARTIFICIAL LIGHTS SUFFER SOME DEFICIENCY IN THIS RESPECT AND THAT IS WHY THERE IS A SPECIAL CATEGORY IN SHOW JUDGING FOR PLANTS GROWN UNDER LIGHTS. OTHERWISE, GREENHOUSE GROWERS WOULD HAVE TOO MUCH OF AN ADVANTAGE OVER ARTIFICIAL LIGHT GROWERS.

### COLOR RENDERING INDEX

THE COLOR RENDERING INDEX (CRI) IS A MEASURE ON A SCALE OF ONE TO ONE HUNDRED OF THE ABILITY OF A LIGHT SOURCE TO ACCURATELY REPLICATE THE VARIOUS COLORS OF OBJECTS IN NATURAL LIGHT. AS SUCH IT IS A MEASURE OF HOW CLOSELY THE SPECTRUM OF THE ARTIFICIAL LIGHT IS TO THAT OF SUNLIGHT (100). FOR EXAMPLE, THE BENELUX 55 FULL SPECTRUM FLUORESCENT TUBE HAS A CRI RATING OF 92, WHICH SUGGESTS IT IS VERY CLOSE TO SUNLIGHT. IN CONTRAST A TYPICAL HIGH PRESSURE SODIUM BULB WHICH EMITS LIGHT PRIMARILY IN THE YELLOW-ORANGE-RED SPECTRUM HAS A CRI RATING OF 22. GENERALLY SPEAKING, FLUORESCENT TUBES OF THE FULL SPECTRUM VARIETY ARE MUCH BETTER AT REPLICATING THE SPECTRUM OF SUNLIGHT THAN EITHER HIGH PRESSURE SODIUM

(HPS) OR METAL HALIDE (MH) BULBS

### EFFICIENCY

CLOSELY RELATED TO THE PROPERTY OF INTENSITY IS THE EFFICIENCY OF AN ARTIFICIAL LIGHT IN CONVERTING A UNIT OF ELECTRICITY (WATT) TO LIGHT RATHER THAN DISSIPATING IT IN HEAT. THE STANDARD MEASURE OF EFFICIENCY IS THE PERCENTAGE OF THE ELECTRICITY THAT IS CONVERTED INTO LIGHT. FOR EXAMPLE, HIGH PRESSURE SODIUM LIGHTS ARE RATED THE HIGHEST AT 64% EFFICIENCY, METAL HALIDE IS NEXT AT 45-57% EFFICIENCY, FLUORESCENT TUBES ARE 38% EFFICIENCY AND THE INCANDESCENT BULB IS RANKED LAST AT 8-10% EFFICIENCY.

TO UNDERSTAND THE SIGNIFICANCE OF EFFICIENCY, CONSIDER THAT A LIGHT BULB PRODUCES ONLY 17.5 LUMENS (FOOT-CANDLES) PER WATT WHILE A HIGH PRESSURE SODIUM BULB GENERATES 140 LUMENS PER WATT. THUS, EVEN THOUGH IT PROVIDES LOTS OF RED SPECTRUM LIGHT, THE LOWLY LIGHT BULB IS NOT A SERIOUS SOURCE OF LIGHT FOR GROWERS SINCE IT WOULD TAKE EIGHT 40 WATT LIGHT BULBS TO GENERATE THE SAME LUMENS AS ONE 40 WATT HPS BULB.

### RANKING OF LIGHTS

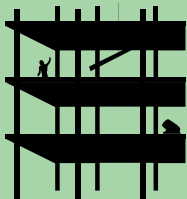
WE CAN NOW EMPLOY THE TWO MEASURES OF CRI AND EFFICIENCY TO COMPARE THE STRENGTHS AND WEAKNESSES



PHAL TEXAS FANCY



ALL ARTIFICIAL LIGHTS SUFFER DEFICIENCIES IN REPLICATING SUN-LIGHT



## OF DIFFERENT TYPES OF LIGHTS

### HIGH PRESSURE SODIUM

THIS LIGHT HAS THE HIGHEST EFFICIENCY RATING AND THE LOWEST CRI. SINCE THE LIGHT IS PRIMARILY IN THE ORANGE SPECTRUM, IT IS BEST SUITED FOR ORCHIDS IN THE FLOWERING STAGE.

### METAL HALIDE

ALTHOUGH IT IS A LITTLE LESS EFFICIENT THAN THE HPS, THE METAL HALIDE BULB HAS RELATIVELY GOOD OUTPUT OF BLUE LIGHT AS WELL AS ORANGE SO IT HAS A SUPERIOR CRI TO THE HPS, ESPECIALLY IF IT IS PHOSPHOR-COATED. SINCE BLUE LIGHT PROMOTES VEGETATIVE GROWTH, THIS BULB IS BEST SUITED FOR SEEDLING DEVELOPMENT. SOME GROWERS RECOMMEND USING A COMBINATION OF METAL HALIDE AND HPS IF YOUR COLLECTION IS A COMBINATION OF IMMATURE AND MATURE PLANTS.

### FLUORESCENT

FULL SPECTRUM FLUORESCENT TUBES HAVE A CRI APPROACHING SUNLIGHT, BUT AN EFFICIENCY RATING OF ONLY 50 PERCENT OF HPS, SO THEY ARE MUCH MORE EXPENSIVE TO OPERATE. HOWEVER, RECENT DEVELOPMENTS HAVE IMPROVED THE EFFICIENCY SCORE.

FIRST, YOU CAN PURCHASE A T10 TUBE THAT IS 1.25 INCH IN DIAMETER COMPARED TO THE 1.5 INCH DIAMETER OF THE STANDARD T12 TUBE. THE T10 CAN BE USED WITH THE T12 BALLAST AND IT WILL SIGNIFICANTLY INCREASE INTENSITY WITHOUT AN INCREASE IN POWER CONSUMPTION. IT IS ALSO AVAILABLE IN FULL SPECTRUM VERSIONS SO IT IS AN IDEAL REPLACEMENT FOR YOUR

T12 TUBES AS THEY WEAR OUT.

SECOND, YOU MIGHT CONSIDER THE PURCHASE OF A T5 HIGH OUTPUT FLORESCENT TUBE. WITH A DIAMETER OF 5/8 INCH IT IS A VERY COMPACT UNIT AND IT COMES IN COOL, WARM AND FULL SPECTRUM VERSIONS. SINCE IT HAS A VERY LOW HEAT FACTOR, IT CAN BE HUNG VERY CLOSE TO THE PLANT CANOPY. THE T5 IS PROBABLY THE BEST COMPROMISE BETWEEN CRI AND EFFICIENCY THAT IS AVAILABLE TODAY. THE ONLY DRAWBACK IS THAT IT REQUIRES A SPECIALIZED BALLAST, SO A CONVERSION FROM THE STANDARD T12 WILL BE RELATIVELY EXPENSIVE.

IF YOU HAVE CONCLUDED THAT NO ONE RIGHT SOURCE FOR ARTIFICIAL LIGHT EXISTS, YOU ARE RIGHT. IT IS POSSIBLE, HOWEVER TO MIX AND MATCH TO HARNESS THE BEST QUALITIES OF EACH.

FOR EXAMPLE, I USE FULL SPECTRUM FLUORESCENT TUBES IN THE GROW ROOM WHERE I GROW PHAL SEEDLINGS FROM FLASK TO MATURE PLANTS. THE HIGH CRI ENSURES THAT GROWTH RATES ARE MAXIMIZED. TO INDUCE SPIKING OF MATURE PLANTS I TRANSFER THEM TO A COOL ROOM IN THE BASEMENT WHERE I EMPLOY A HIGH PRESSURE SODIUM BULB ON A TRACK. THE TRACK ALLOWS ME TO DOUBLE THE AREA SERVICED BY ONE 400 WATT BULB (4'x8'). THE LOW CRI OF THE BULB IS NOT THE WORRY IT WOULD BE IN THE GROW ROOM, SINCE I AM PRIMARILY INTERESTED IN BUD DEVELOPMENT IN THIS AREA.

### REFERENCE

REINDERS, GRAHAM AND MARSEENE MAINLY. HOW TO SUPERCHARGE YOUR GARDEN. ABBOTSFORD, B. C: MAINLY PUBLICATIONS, 1999.