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## Twelve12

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### The Gas Lantern Routine for Growing Cannabis



by [Twelve12](#), 10-05-2011 at 11:20 PM (766 Views)

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#### The Gas Lantern Routine for Growing Cannabis

By *Daniel Boughen*

#### Observing Natural Cycles

During the course of my observations growing cannabis, I have noticed that factors such as clone burn-out seem to suggest that overexposure to light is adversely affecting the hormonal balance of the growing plants and causing the genetics of the cuts and seedlings to degrade over the course of several generations. Cannabis seems quite happy when the hormones are allowed to properly build up more during a natural outdoor vegetative cycle, and this may contribute to more balanced levels of THC and CBD, resulting in a more positive response to triggering, and better-quality medicinal cannabis being grown.

I turn to the conditions of nature to find the solution, and in a natural model, I can see that from the point of view of the plants, the sun gradually moves past, casting sunbeams and shadows of objects and trees in front, beside, and behind the plant successively across photo surfaces during the course of the day. This clearly shows that in the natural environment, the play of light and shadow are significant to the natural progress of the plant.

Even in a northern climate, there is no such thing as 18 hours of direct and intense lighting anywhere to be found, and most areas where the summer is short, the lighting is no longer than 16 hours in total.

During a recent discussion with other growers, we rediscovered a rumored century-old technique that proves that the direct and intense application of light for longer than necessary can be more stressful to the plant than previously known, and could even degrade the plant's genetic strength.

Now that cannabis growers are starting to grow specifically for medicines, the health of the plant needs to be properly considered so that the full natural potential of the plant can be realized and the fullest expression of the plant's medicines be produced. The margin for error is becoming smaller as the mistakes of the past are revealed and medicinally specific growing is gaining importance.

#### The Old Cash Cropping Method

The commonly used cash cropping method of cannabis cultivation wastes energy. People use this method by rote, since they simply don't know what the real requirements of the plants are. It is stressful to the hormonal systems of cannabis, and not necessary to produce fully healthy and productive plants. It does not recognize that overexposure to light is harmful to the plants, and so they underperform in terms of taste, yield, quality, and potency of the medicine, or require supercharged fertilizers to reach their potential. It is surprising that these techniques are used with profits in mind, since they are clearly expensive and counterproductive.

#### The Gas Lantern Routine

This information will seem quite revolutionary to growers who have been using the standard cycles to produce cannabis, seemingly with little or no trouble at all. Actually, in a grow that more closely mimics the outdoor growing environment under indoor lighting conditions, the plants may be maintained in vegetative cycle using only a total of 13 hours of light daily,

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which dramatically reduces the cost of production.

The less is more approach of the Gas Lantern Routine provides the growing plant with adequate darkness to promote health, and by inserting a full hour of light in the center of the dark period, the plants are tricked, and neither flower nor express hermaphrodites. The growing plants get more than the average amount of rest, thus reducing stress, and improving plant yield, overall performance, and medicinal quality.

### Seedlings and Cuttings

The Gas Lantern Routine is applicable in seedling phases of plant growth. As stated before, nowhere in nature does the springtime ever provide an 18-hour photosynthesis length; rather, the growing spring light may in fact be 12 hours or less. Lighting for seedlings and cuttings needs to be bright, but compact fluorescent or T5 lighting may be used while in the seedling phase. Rooted mature cuttings can immediately light with HID lighting.

### The Vegetative Schedule

This method is quite simple: 12 hours of light, followed by five and one half hours of darkness, a single hour of light exactly, and then a second period of five and one half hours of darkness. Placing a full hour of light in the very center of a 12-hour dark period tricks the plant and interrupts the buildup up of sensitive floral hormones, which would normally trigger flowering by destroying them. The grower simply raises the plants to the desired size before switching to the fall schedule to bloom.

Using this method, vegetative duration may be also reduced, and with a shorter growth cycle comes more frequent and better production. Vegetative cycles can be shortened by one to two weeks, and flowering may also be shortened a week or more using this method in conjunction with a diminishing light schedule.

For patients growing their own medicine or for compassionate cannabis providers, production turnover may be increased from four to five crops per year or more using rotation, and power consumption can be reduced even further by the use of high-intensity fluorescent lighting during vegetation, and overall, power consumption savings can be 50 percent or more.

### The Flowering Schedule

Plants that have been grown up using the Gas Lantern Routine are now supercharged with floral hormones, and ready to go into flower with the slightest provocation. The interruption of the dark period has been destroying enough of the naturally building hormones to keep the plant from expressing sex, and the well-rested plant now has plenty of stored nutrients and energy to finish its life cycle and flower. Triggering the plants is essentially just a matter of removing the interrupting light period, so the plants may now experience the full buildup of hormones that will trigger blooming.

In keeping with providing all the correct organic biological and environmental needs of the plant, the diminishing fall schedule should be employed to take full advantage of the hormonal preparation created by using the Gas Lantern Routine. The diminishing hours of light in nature trigger acceleration in the production of hormones in the plant, making it flower with increasing speed and power.

### The Diminishing Lighting Schedule

The diminishing fall schedule begins with an evenly halved light schedule, using 12 hours for the first two weeks to trigger the plant into bloom, and then further reducing the lighting for increasing darkness time by one half hour every week.

The final week of flowering will provide the plants with a mere nine hours of light, with 15 hours of darkness, forcing a resulting final explosive hormonal buildup. This sends the plant into blooming overdrive and produces resin far beyond the normal plant's limits.

When the Gas Lantern Routine and Diminishing Light Schedule are used together, they create healthier, more naturally robust plants. These important and historical botanical techniques are soon going to become very important techniques in the coming years as medicinal cannabis research continues to advance. When viewed from cost of production, organics, and medicinal needs, the methods currently being promoted can be seen counter to the interests of growing healthy plants. Understanding your plants is the best way to grow the best medicine, and looking for solutions to growing problems by observing nature always provides the right answers.

-

**My 1 month trail run!**

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Originally Posted by **Twelve12**

**Update: Gas Lantern Routine - Week 4 completion**

Been running this light cycle for a month and the results are amazing. I would say this light cycle is superior to any other light cycle for vegetative growth.

**For veg:**

- 12-1 (Gas Lantern Routine) - Superior
- 15/9 - High
- 16/8 - High
- 18/6 - Middle
- 24/0 - Low

Here are the results from each week. I've trimmed a few times and the tent bounce back with more growth.

**Before the switch**



**1st Week Results**



**2nd Week Results** - Trimmed after photos taken



**3rd Week Results - New Growth - Trimmed (center)**



**4th Week Results - New Growth - Trimmed (center)**





*No pistils/balls till this day.*

*I left the top area of the tent alone (only trimmed once) to see the height differences between the new growth and the old tops. Every two weeks the tent gets really dense so new cuttings are made to keep them in check. I have over 15 strains in here not recommended for small tent even the one I use 4x4 is quite small, it can get crowded if you don't have use for the cuttings. Good thing I got the 2L SOG running for the clones.*

*To solve the solution is to keep the mother plants small, bonsai small while keeping some at normal height. So every two weeks I trim the plants at normal height while letting the bonsai grow, and 2 weeks later take cuttings from the bonsai (should be at normal height by then) while letting the new bonsai plants grow, and repeat the cycle. I also have my own tissue culture going (more on this later) to preserve the clones when the cloner is running full capacity. This way the tent is kept at growth balance.*

**Pro:**

- Saves electricity (11hrs of saving from 24/0, 5hrs of saving from 18/6)
- Promote healthy plants. Any deficiency it has the plant will be able to bounce back

- with new growth after adjustment is made*
- Promote plants growth, 2x more than 18/6, and 3x more from 24/0\*
  - Cuttings will root much faster with thicker roots\*
  - Clones under bloom (12/12) will induce flowering much sooner\*
  - Less on hours = less heat = stealth
  - Great for rooted clones and mother plants

**Con:**

- Tent grow must have good ventilation or keep the tent unzip for the 1hr on between the dark cycle.
- Require odor control (carbon filter + inline fan combo). Healthy plants produce more aroma even in veg.\*
- Plants in small container (less than 10oz container) may get root bound due to rapid growth
- Not recommended for rooting clones.\*

\* Strains vary

**Some tips using GLR (theory):**

- Have the light on a timer so the on/off is consistent daily. Manual on/off may induce flowering.
- Use mix light or MH. Try not to use just HPS. The spectrum from HPS may induce flowering even with the 1 hour on between the dark cycle.
- For the 1 hour on use a cheap light source like Fluorescent light or CFL instead of using HID light. Have it on a separate timer only turn on 1hr between the dark cycle and have the HID light set at 12/12. Normally with any other light cycle the ballast is turned on once in 24hrs, with GLR it turned on twice. This may shorten the lifespan of the ballast and bulb. If you decided to run Fluo/CFL then make sure the tent is well lid any shaded area or area left in the dark may induce flowering. The 1 hour on between dark cycle help destroy floral hormone, lack of light will not be able to destroy the hormone and will send your plants in bloom.

I'm very impressed by the results from GLR. I give this light cycle a passing grade:

**A+**

You're safe to run this light cycle if you want. I'm using this exclusively for all clones/seedling/and plants in vegetative growth.

Like | Share

GodSpeed, Smoke2Js, DeerHunter33 and 8 others like this.

Tags: gas lantern routine, light cycle, photoperiod  
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**Comments**



HomeGrone - 10-06-2011 08:18 PM

Report | Reply

Some very interesting information definitely gonna try this

Like



OG13 - 10-16-2011 10:53 PM

Report | Reply

I've used this lighting schedule for mother maintenance (to help keep them small), but all the clones were rooted and "vegged" in the same space....could explain some things I have observed over the years.

Like



OG13 - 11-01-2011 09:26 AM

Report | Reply

Still don't understand why it's called gas lantern.....

Like



420Dexter - 11-05-2011 05:42 PM

Report | Reply

I want to know the origin of the name as well.

12 I just germinated a single Hawaiian Snow seed and plan on using GLR for the next 30 to 45 days of veg. Thanks for the tips. Keep them coming!

Like

Twelve12 - 11-11-2011 02:59 AM

▲ | ↻ Reply

Not exactly sure on the origin of the name "Gas Lantern Routine". However, this technique is centuries old so back then they did not have any light bulb and had to use a gas lantern to break the cycle...just a theory.

Like

urmom likes this.



jandre2k3 - 11-15-2011 02:11 AM

▲ | ↻ Reply

Hey, 12. You know me and my purple. I wanna keep her as healthy as I can for as long as she lasts, and then use CS on one of her clones, back pol, and let her seed out on the last round. That way I can continue the strain. Or maybe self/cross the clone gen just before the last so I can smoke to her passing. Thoughts? I know you just posted this last month. I'm wondering if you are satisfied with the results of GLR so far. Have you noticed healthier, more vigorous plants and faster, stronger growth? I can't really tell from your pics but it seems they popped up nicely.

Also for your flower have you done DLS for flower?

Like



Twelve12 - 11-15-2011 07:46 AM

▲ | ↻ Reply

**jandre2k3** ~ Self pollination (S1) should retain all the same genetic and can provide you enough seeds to not keep a mother plant around. It is up to you. I would try to keep a bonsai mom just in case I need to back track or need more seeds from the original plant before any cross made, self or hybrid.

GLR is amazing. Every week I have to trim the tent or the bulb will fry the top canopy. The tent has 600w MH running so they grow quite fast, and no sign of flowering, pre-flower yes on some. As far as DLS goes I cannot use it with the perpetual grow. However, I don't run full 12/12, the lights are only on for 10 hrs evenly throughout different flowering stages.

Like



jandre2k3 - 11-15-2011 09:00 AM

▲ | ↻ Reply

🗨️ Originally Posted by **Twelve12**

*I would try to keep a bonsai mom just in case I need to back track or need more seeds from the original plant before any cross made, self or hybrid.*

Never tried a bonsai, do you have a thread to suggest for that technique? Also, wouldn't she get weak after a while and start to degrade as well? Not sure how old the mother was from which this clone came, but I know she's a strong one. I'm just preparing for down the road.

Like



Twelve12 - 11-18-2011 01:49 AM

▲ | ↻ Reply

This thread has info on bonsai moms. The plant does not degrade it just limiting growth from having too many shoots and keeping a small root ball so the plant don't get root bound over time. I keep all males bonsai or in time capsule, while clone producing mothers in the largest container I can find (3gal) while still provide enough space for other plants in the same tent.

Like



jandre2k3 - 11-19-2011 01:37 AM

▲ | ↻ Reply

🗨️ Originally Posted by **Twelve12**

*This thread has info on bonsai moms.*

Guess what... There's no difference in my favorite hobby, and my new favorite: relief growing - applying the same principles to the relief growing that I already knew for the other... this is gonna be outstanding!

Like



ozric420 - 11-21-2011 08:02 PM

▲ | ↻ Reply

great info thanks

Like



Spicy2na - 11-25-2011 01:36 AM

▲ | ↻ Reply

I had been doing 18/6 for this recent grow for the first two weeks. I then read this and decided to try it out. I'd say they have grown more in the last 4 days than they have in the past two weeks. I'm really digging this schedule. Thanks for the post!



- 11-28-2011 11:48 PM ▲ | [Reply](#)

"Cyclic" or "Long-Day Lighting" are probably the more modern terms for this , used cyclic lighting schedules in green houses especially in misting beds/propagation tables for rooting clones mostly in my experience . Great read & thanks for sharing it !

Like



jandre2k3 - 12-09-2011 02:09 AM ▲ | [Reply](#)

Hey 12. I realized the other night where the name came from! I actually remembered it from a camping trip. we had a few gas lanterns for light. When we turned them off for the night, from full on to off, they seemed to go out but a few seconds later gave a little \*burp\* of light and a \*foof\* sound as the last of the fuel was consumed in the lines feeding the mantle. Every gas lantern I've ever seen did the same thing, a few commercial gas stoves, too. Could this be a possible reasoning behind the GLR name??

Like



Twelve12 - 12-09-2011 03:19 AM ▲ | [Reply](#)

Interesting observation from memory. It make sense.

Not sure where to find the official documentation that explains the usage of the name "Gas Lantern Routine".

Got this from another forum not sure if it's true.

"the gas lantern technique basically back in the day farmers who wanted to keep their plants from flowering too early used to ad gas lanterns to supplement lighting when light periods used to dip down to 12 hours of light so they would have gas lanterns come on for an hr in between the 12 hrs of darkness so you in modern indoor grows you would set your veg routine to 12 hrs on 5 1/2 hrs off 1 hr on and then 5 1/2 hrs off again."

Like



DeerHunter33 - 02-04-2012 10:47 PM ▲ | [Reply](#)

thank you!!!!!!!!!!!!!!!

Like



JBC420 - 02-11-2012 10:09 AM ▲ | [Reply](#)

Yeah nice one for this 12, good saver good producer

Like



DeerHunter33 - 02-11-2012 12:24 PM ▲ | [Reply](#)

nice 12/sweeet!!!!!!!!!!!!/little tricky , like riding a bike, im gonna try //////////next harvest///thanks!!!!!!!!!!!!

Like



Jozo-sha - 03-09-2012 02:26 AM ▲ | [Reply](#)

I'm trying to figure out how the hell to get that lighting cycle on my timers :(

Like



Twelve12 - 03-09-2012 07:47 AM ▲ | [Reply](#)

Jozo-sha what timer are you using?

Like



driftme - 03-16-2012 11:41 PM ▲ | [Reply](#)

I just started using this technique as well. My seedlings are only 1"-2" high right now, so its basically from the ground up so to speak. One plant is a ?? bag seed, and one is Dinafem Super Silver. Theyre in soil with an led light. Using a cheap pushpin type timer.. the kind with the rotary dial surrounded by switches =]

Will let you know how it works!

Like



Twelve12 - 03-17-2012 10:11 AM ▲ | [Reply](#)

driftme - sweet. Let us know how you like it. Give it 3-4 weeks grow under GLR for the full effect.

Like

**SurfBuddy** - 04-07-2012 12:44 AM  |  Reply

I just set my timer to run this too. Was running too hot in the daytime and this is a nice way to use natural night cooling, save on energy, and veg with less stress.

**Thank You**  


Like



**Twelve12** - 04-07-2012 02:11 AM  |  Reply

Congrats **SurfBuddy**! Looking forward to your results.

Like



**QueenTokelove** - 04-11-2012 09:42 PM  |  Reply

Just now seeing this 12. I am going to try it with my next grow that I do with clones. Great info and bookmarked sir.

Like



**QueenTokelove** - 04-11-2012 09:44 PM  |  Reply

 Originally Posted by **Jozo-sha**  
*I'm trying to figure out how the hell to get that lighting cycle on my timers :(*

Yeah that is a concern for me too because I don't have a digital timer. My bf tries to get it perfect but it still seems to be a few minutes off. I guess trying to read those small little lines. Will that affect GLR?

Like



**Twelve12** - 04-11-2012 09:56 PM  |  Reply

High **queentokelove**, the analog timer with little pins will do. Few mins off shouldn't be a problem. Hours off will. Good luck.

Like



**Icemud** - 04-12-2012 09:21 PM  |  Reply

I'm using this method on my current grow journal and so far very fast growth in veg (currently week 3). I am amazed by how the plants are responding as well as the savings in the electric bill is awesome.

Like



**driftme** - 04-22-2012 10:30 PM  |  Reply

 Originally Posted by **Twelve12**  
**driftme** - sweet. Let us know how you like it. Give it 3-4 weeks grow under GLR for the full effect.

Reporting back. Loving it. The plants seem to be as well, although I don't have any prior grows to judge it against.

Like



**Twelve12** - 04-23-2012 12:39 AM  |  Reply

**driftme** - Thanks for reporting back. Glad you like it. 🌍

Like

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