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The Bach Biodynamic Planting and Research Calendar



2020

Introduction

Welcome to the 2020 edition of the Bach Biodynamic Research and Planting Calendar. The planting indications given in this calendar are based on indications given by Rudolf Steiner in 1924 in a course of lectures now available online and in book form, and on research that I have conducted over the last seven years, which support Steiner's indications¹. From previous research conducted in this calendar the following times have emerged as favourable for planting both above and below ground crops:

- Two days before a full moon (also an indication given by Rudolf Steiner)
- Perigee, when the moon is closest to the earth (research by H. Speiss also supports planting at perigee²)
- Ascending phases of the inner planets Mercury and Venus (also based on indications given by Rudolf Steiner)

There are also several times when sowing should be avoided, if possible. Most important of these times is during a lunar eclipse, where research I have conducted has shown significant reduction in germination and in plant growth when seeds are sown at this time. Lili Kolisko also conducted research in this area which found that lunar eclipses hindered plant function. Weaker sowing times also occur when seeds are sown during new moon phases and at apogee, when the moon is furthest from the earth. Therefore, planting during a waxing phase when perigee and either Mercury or Venus is in an ascending phase is an ideal time to sow seeds. All of these dates and ideal planting times are specifically indicated on the dates when they occur in this year's calendar. Best planting dates are indicated as exceptional, very good, good, and fair, depending on the combination of the above mentioned factors.

An ascending planet in this calendar is one that is in a phase that is moving north towards mid-heaven in the Northern Hemisphere, and south towards mid-heaven in the Southern Hemisphere. With this definition, all planets will be in an ascending phase in one hemisphere, and a descending phase in the other. This definition is based on Rudolf Steiner's comment in the Agricultural Course:

¹ 1 Steiner, R. (2004). Agricultural Course, The Birth of the Biodynamic Method. Eight Lectures given in Koberwitz, Silesia, between 7 and 16 June 1924. Rudolf Steiner Press. Also available online for free at:

https://wn.rsarchive.org/Lectures/GA327/English/RSPC1938/Ag1938_index.html

² http://www.biodynamic-research.net/pdf/pdf_lda1/spbd00.pdf

January 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Mercury ascending NH- Jan 1-Feb 20 Venus ascending NH- Jan 1-May 4	Mars- descending Jan1- Feb 21	Jupiter ascending- Jan1- May11	1 apogee- 17:30 Saturn ascending- Jan 1- May 7	2	3	4
5	6 Fair planting days Jan 6-7 NH and SH	7	8 No plant days Jan 8-10	9	10 Lunar Eclipse 04:10	11
12 Fair planting days Jan 12-13 NH and SH	13 pergiee-12:20	14	15	16	17	18
19	20	21	22	23	24 new moon-13:42	25
26	27	28	29	30	31	

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“Saturn goes slowly round, in thirty years... Sometimes it shines directly on to a given spot of the Earth. But it can also work *through* the Earth upon this portion of the Earth’s surface. In either case the intensity with which the Saturn-forces are able to approach the plant life of the Earth is dependent on the warmth-conditions of the air. When the air is cold, they cannot approach; when the air is warm they can...if you wish to plant a coniferous forest, where the Saturn forces play so great a part, the result will be different if you plant the forest in a so-called ascending period of Saturn, or in some other Saturn period....Assume for instance that we take, as firewood, wood that is derived from trees which were planted in the Earth without understanding of the cosmic rhythms. It will not provide the same heart-giving warmth as firewood from trees that were planted intelligently (p.27).

Based on these indications, the planets Mercury, Venus, Mars, Jupiter and Saturn will be either in an ascending or descending phase in the Northern or Southern hemisphere. The ascending phases of these planets are indicated in the calendar, and the hemisphere in which the planet is ascending is indicated in the Northern Hemisphere by the letters **NH** and in the Southern Hemisphere by the letters **SH**. The outer planets (Mars, Jupiter and Saturn) affect the growth of plants while in an ascending phase and where warmth is present (presumably summer would be the best time to plant, but artificial warmth may also be of benefit). Plants affected by the outer planets are described by Steiner in the Agricultural Course as those that are long lived and have bark or rind. Steiner specifically indicated that oak trees are affected by the planet Mars, and, as described above, coniferous trees are affected beneficially by the ascending phase of Saturn.

Where the outer planets affect the growth of longer-lived plants (trees), the inner planets affect the growth of shorter-lived plants, like annuals, bi-annuals and perennials. This includes, of course, virtually all vegetables, and most berries and fruits. Steiner does not give an indication as to what weather conditions affect the efficacy of the forces of these inner planets upon the growth of shorter-lived plants, but I assume that moisture and warmth allow these forces for work most effectively. Steiner does indicate that moisture is an important factor in the forces that affect plant growth that emanate from the moon during its waxing phase. Annual and bi-annual vegetables, being the shortest lived of plants, must therefore be strongly affected in particular by the ascending phase of Mercury. I assume that berries and shrubs, which can live up to 10 years, would be more affected by the growth of Venus, and fruit trees by the forces of both Venus and Mars. This is an area where more research needs to be conducted.

There are four lunar eclipses this year, and these are times where sowing of seeds should be avoided. These dates are also indicated in the calendar. There are also several exceptional planting dates in this year’s calendar, in both the Southern and Northern Hemispheres. With these dates, the three indicators for good sowing all occur: they are during a waxing phase of the moon, perigee also occurs at this time, and Mercury or Venus is ascending.

February 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6 Exceptional planting days Feb 6-10 NH Good SH	7	8 full moon-23:34
9	10 perigee-12:31	11	12	13	14	15
16	17	18	19	20 Mercury ascending phase ends NH	21 Mercury ascending phase begins. SH Ends Mar 17	22 Mars ascending phase begins NH Ends Sep 13
23 new moon-07:33	24	25	26 apogee-03:35	27	28	29

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Exceptional planting dates 2020

Northern Hemisphere: March 6-9 March 17-19 April 3-7 May 3-6 October 28-29	Southern Hemisphere: March 6-9 May 3-6 August 1-2 August 27-29 September 28-30 October 28-29
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Lunar eclipse dates for 2020:

January 10 June 5 July 5 November 30

Pest Control Using Ashing

In lecture six of the Agricultural Course, Rudolf Steiner gave practical information on the biodynamic approach to dealing with pest control. This is done through the process of ashing, where the pest that needs to be controlled is burned in a small wood fire. These ashes are then spread over the ground in a process Steiner called peppering. Only small amounts need to be used, and can be spread over a wide area. Steiner spoke of how life forces live in the watery element, and the counter forces to these life forces live in the element of fire. Hence, when we burn a seed, insect or rodent, we create anti-life or anti-reproductive forces in the burned substance. These forces are then spread out over the garden or field when peppering takes place. These forces can be further magnified in a process called potentization, where one part of ashed substance is added to nine parts water, and the mixture is stirred rhythmically for ten minutes. Rhythmical stirring involves stirring vigorously in one direction to create a vortex (15-30 seconds in one direction is sufficient), and then stirring in the opposite direction for the same amount of time, again creating a vortex. In the transition from stirring from one direction to another, stirring should again be vigorous, so as to create a period of what Steiner refers to as 'chaos'. The creation of the vortex draws the necessary cosmic forces into the water/pepper mixture, and the chaos period infuses these forces into the mixture. After the first ten-minute stirring takes place, the first potentization has occurred (called D1). After this first stirring has been completed, one part of this D1 mixture is added to nine parts water, and the process is again completed to create the second potentization, D2. I then spray the nine parts of the D1 on the field or garden in the areas where pest control is needed. A backpack

March 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6 Exceptional planting days Mar 6-9 NH and SH	7
8 daylight savings begins	9 perigee-23:33 full moon-10:48	10	11	12	13	14
15	16	17 Mercury ascending phase ends SH	18 Mercury ascending phase begins NH Ends May 27	19	20	21
22	23	24 apogee-08:23 new moon-02:29	25	26	27	28
29	30	31				

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sprayer can be used for larger areas, and a simple cedar or fir branch can be dipped into a bucket, and then used to whisk the potentized substance onto the soil for smaller areas. This process is then repeated. I recommend stirring up to a D14. In her book *Agriculture of Tomorrow* (I believe to be the most important Agricultural book in the world) Lili Kolisko spoke of how the first seven potentizations work in the physical realm, the seven after that on the etheric realm, and the seven after that on the astral realm. For ashing of pests, it should not be necessary to work further than the ether (or life) body of an organism to create the desired conditions where these pests will not want to inhabit the peppered or potentized area. This occurs from D1-14 in the potentization process. It is, however, of paramount importance that the pest in question be burned at the correct time. In the case of insects, the timing of this correlates to the sun's passage through the constellations.

Weeds should be ashed two-days before a new moon. The chart below shows the progression given by Rudolf Steiner, where winged insects are ashed in the constellation of Aquarius, those with bone marrow in their abdomen (beetles) in Taurus, and larvae (I include slugs and snails in this category) are ashed in Cancer. The ashing takes place when the sun is in the mid-point of the constellation in question. The ashing for creatures with a bony system, with a spine and skeleton, is somewhat different. Here the creature should be ashed when Venus is in the sign of Scorpio. All of these dates are achieved by using a sidereal zodiac, which shows the true position of the sun through the various constellations.

I have included all the dates of the sun's high point through the zodiac in the table below. It may be necessary to capture creatures before an ashing date occurs, and then to freeze them until the date in question. For example, this year I am in the process of conducting ashing and potentization experiments using mice (see below). I caught and skinned mice in the summer, and then froze their skins and conducted the ashing of these skins on November 10th, when Venus was in the mid-point of Scorpio. The mice had been dead for several months, but the ashing process activated the forces contained in their skins. I then saved the ashes and used them for the potentization process (see 2019 research below).

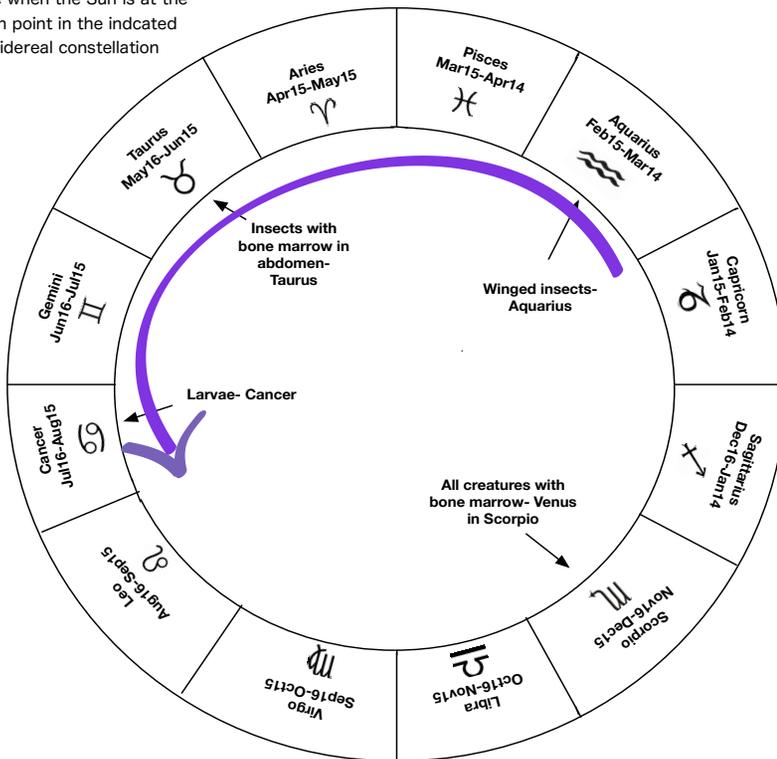
April 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3 Exceptional planting days NH good planting day SH April 3-7	4
5 Best planting day of the year NH	6	7 perigee-11:08 full moon-19:35	8	9	10	11
12	13	14	15	16	17	18
19	20 apogee-12:01	21	22 new moon-19:26	23	24	25
26	27	28	29	30		

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Insect and Animal Ashing Chart (sidereal)

All Ashing for insects is done when the Sun is at the high point in the indicated sidereal constellation



The table below gives the dates for the ashing of various insects, and also the date for animals with a spine for 2020:

- Aquarius March 1 - winged insects
- Pisces March 31-
- Aries April 30
- Taurus June 1 Insects with bone marrow in abdomen (beetles)
- Gemini July 2-
- Cancer August 2 (larvae)
- Venus is in the high sign of Scorpio on the Dec 24th (all creatures with a spine and bone marrow)

May 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3 Very good planting days May 3-7 NH and SH	4 Exceptional planting day May 5 NH and SH →	5 perigee-20:03 Venus ascending phase ends NH	6 Venus ascending phase begins SH. Ends Jul 5	7 full moon-03:45	8 Saturn descending phase begins. Ends Oct 2	9
10	11	12 Jupiter descending phase begins. Ends Sep 17	13	14	15	16
17	18 apogee-00:45	19	20	21	22 new moon-10:39	23
24	25	26	27	28 Mercury descending phase begins. Ends Jul 7	29	30 Fair planting days NH very good planting days SH May 31-Jun2
31						

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2019 Research

Mice Potentization Research

In his 1923 Agricultural lectures, Steiner spoke of the biodynamic method to ash mice. He stated the following:

Now that we are passing from plants to animals, we come to the 'animal circle'- that is the Zodiac. It was not called so in a meaningless way. To attain our end within the plant world, we can stop at the planetary system. For the animal world, that is not enough. There we need ideas that reckon with the surrounding sphere of the fixed stars, notable the fixed stars of the Zodiac... At the time when Venus is in Scorpio you obtain the skin of a mouse and burn it. Carefully collect the ash and the other constituents that remain over from the burning. It will not be much, but if you have a number of mice, it is enough.... Thus you obtain your burned mouse skin at the time when Venus is in Scorpio. And there remains, in what is thus destroyed by the fire, the corresponding negative force as against the reproductive power of the field mouse. Take the pepper you get in this way, and sprinkle it over your fields. In some districts it may be difficult to carry out; then you can afford to do it even more homoeopathically. You do not need a whole plateful. Provided it has been led through the fire at the high conjunction of Venus and Scorpio, you will have an excellent remedy.

Venus passed through the high sign of Scorpio, that is the middle of Scorpio, on November 10th, 20019. At that time, I burned the skins of 6 mice that I had killed in mousetraps during the summer on my farm in Princeton, BC. In late October I captured 7 mice using a bucket with food in the bottom. These live mice were placed in two identical cages. As there was an odd number of mice, 4 were placed in one cage, and three in the other. I tried to ascertain the sex of the mice, but was not able to do so. I have looked at videos on Youtube on the subject, but through observation, was not able to conclusively determine the sex of each of the mice.

The next step in setting up the experiment was to place ashed mice in one cage, and ashed material without ashed mice skins in another cage (control). To conduct the ashing, I first made a small fire using straw and dried grass in a concrete

June 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 perigee-20:36	3	4 no plant days Jun 4-6	5 Lunar eclipse 11:25 full moon-12:12	6
7	8	9	10	11	12	13
14 apogee-17:56	15	16	17	18	19	20 new moon-23:42
21	22	23	24	25	26	27
28	29 perigee-19:09	30				

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bowl (mortar). Some of this ash was then removed. This ash was used as the control in the experiment. The mouse skins were then added later, and more of the same dried straw and grass was added and burned with the mouse skins. The control ash, that which did not contain the ashed mice substance was placed in a tinfoil dish and folded. This dish was then taped onto the top of a plastic container that served as the abode for the mice within the cage.



This created the control group of mice. The same process was then followed for the experimental group of mice (see photo), except the ash containing the mouse skins was used. I felt it was important to create a control ash substance, because the ash itself is a variable that could ultimately affect the health of the mice by having this ash in the vicinity of the mice, and more importantly, of using this ash to potentize the drinking water of the mice (see below for further details). Both the control and experimental groups of mice had the same size cage, each with an exercise wheel, a plastic food container

July 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3 no plant days Jul 3-5	4 Lunar eclipse 20:40 full moon-21:44
5	6 Venus ascending phase begins NH Ends Aug 19	7	8 Mercury ascending phase begins NH Ends Jul 30	9	10	11
12 apogee-12:27	13	14	15	16	17	18
19	20 new moon-10:33	21	22 Good planting days NH fair planting days SH Jul 22-24	23	24 perigee-21:54	25
26	27	28	29	30	31 Mercury ascending phase ends NH	

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with a hole cut in it which served as a sleeping area, a tinfoil dish for food and a small plastic water dish. Shredded paper or leaves served as bedding for the mice, which was changed once per week. The tinfoil folded container, which contained the ash was then taped to the top of the sleeping container of the cage (green tape in photo). This allowed for the ashed material to stay in the vicinity of the mice while they slept, and also allowed for regular cleaning of the cages while not having to add ashed material to the bedding each time it was changed. Additionally, some of the control ash and the ash containing the mouse skins was then potentized in water up to a D14. The control D1-D14 water was given to the control mice as their water source, and the D1-D14 water with the ashed mice was given to the experimental mice as their source for water.

Discussion:

There is not a great deal of research that I have found regarding using ashing and potentization to control pests. Results have been mixed, with some finding that peppering and potentizing has no affect, while others have found that it does work, and much of the research is anecdotal in nature. More systematic research in this area needs to be conducted, and the work that I am here describing is only preliminary and limited in its scope. The research that I conducted last year on slugs did show a positive correlation in peppering/potentizing in the sense that the slugs exposed to ash through peppering and potentization did, after about two and a half months, show higher mortality rates and also lower body weights than the control population. The potentized group had a larger mass than the control group at the start of the experiment, but as time went on, the control group of slugs had higher body weights and a lower mortality rate.

There are several potential drawbacks to the research model that I am using. The first of these is that I am not weighing the mice. The reason for this is that these are wild mice, and are difficult to capture and handle. If one were to escape into my garage during the weighing process the entire experiment would be compromised, as there are only a total of seven mice for the experiment. Another potential problem in this research is not knowing the sex of the mice. I have attempted to observe them when they are active but cannot ascertain for certain the gender of each mice. I will continue to try to ascertain this as time goes by. I am also unaware of the age of the mice. This makes it difficult to accurately assess the cause of mortality in mice as time passes. Perhaps the greatest drawbacks to this experiment are the short time period of the experiment, coupled with the captivity of the mice. In Steiner's description of peppering, he spoke of how mice would not be killed by the ash, but would instead elect to leave the area. I assume that there is some level of perceived discomfort that the mice experience through the presence of ashed material in their vicinity, but how this discomfort will affect the mice is not known, and how the inability to leave the area will affect the mice because of captivity also needs to be further researched, and I hope that this research will begin to shed some light on these questions.

August 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					Mercury ascending phase begins SH Ends Oct 13	1 Good planting days Aug 1-3 NH and SH
2	3 full moon-08:59	4	5	6	7	8
9 apogee-06:51	10	11	12	13	14	15
16	17	18 new moon-19:42	19 Fair planting days NH good SH Aug 20-21 →	20 Venus ascending phase ends NH	21 perigee-03:59 Venus ascending until end of the year SH	22
23	24	25	26	27 fair planting days NH very good SH Aug 27-Sep 1	28	29
30	31					

Notes: _____

The plan for this research is to feed the mice the potentized control and ashed water daily until each supply runs out. The ashed material in the tinfoil cups will remain over each of the mice sleeping areas throughout the experiment. I will conduct this experiment for approximately four months, until mid-March, and will update results as they occur. As of this writing, (Dec 30) one of the potentized mice has died. The flesh on the lower part of its face had, for some reason, receded or fallen off (rubbed off?), exposing the jawbone of the mouse (see photo). I do not know if this was a result of the potentized ash and the discomfort this caused, or for another



reason. If this pattern continues overtime and only to the experimental group, than the conclusion could be drawn that the ashing/potentization has adversely affected this population. I will continue to report on this experiment when there are significant events.

Sunflower ashing experiment

This year I have also completed a very small and a simple experiment using sunflowers and ashing to try to determine if the ashing of seeds, as described by Steiner, affected the germination and subsequent growth of plants. For this experiment, I ashed sunflower seeds mixed with hay two days before a new moon (December 23rd). I also created control ash using only hay. The control ash was sprinkled on top of and then lightly mixed into a pot containing compost, and the same was done with the hay/ashed sunflowers in an identical pot using the same compost. Twelve sunflower seeds were then placed into each pot,

September 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 full moon-22:23	2	3	4	5 apogee-23:31
6	7	8	9	10	11	12
13	14 Mars descending phase begins. Ends Nov 1.	15 Mars ascending Sep 15-Nov 1 SH	16	17 new moon-04:00 fair planting day Sep 18 NH good SH→	18 perigee-06:44 Jupiter ascending phase begins. Until end of year.	19
20	21	22	23	24	25	26
27	28 Good planting days NH Very good planting days SH Sep28-Oct 1	29	30			

Notes: _____

and the germination and growth of each group was studied over three weeks. The results of the experiment are summarised in the table below:

	Total germination	Total weight	Average weight/plant
Ashed sunflowers	12/12	20.29 grams	1.69 grams
Control sunflowers	10/12	16.8 grams	1.68 grams

The

The ashed sunflower group containing the ashed sunflowers, indicated by Steiner as having a detrimental impact on the growth of plants, here had higher germination than the control group containing ashed hay only. The average weight of the plants was virtually identical. On first glance it would seem that this is not an effective way to control weeds, but Steiner indicates that this process is one that takes time to be effective. In the Agricultural Course he speaks of this process as taking up to four years:

Gather a number of seeds of the weed in question. ...Now light a flame - a simple wood flame is best- and burn the seeds. You get comparatively little ash, but that does not matter. ...you will have concentrated in the ash the very opposite force to that which is developed in the attracting Moon-forces...*Already in the second year you will see, there is far less of the kind of weed you have thus treated. ...Moreover many things in Nature being subject to a cycle of four years, after the fourth year you will see, if you continue sprinkling the pepper year by year, the weed will have ceased to exist on the field in question.* Here, in fact, you will make fruitful the ‘effect of smallest entities’, which have now been scientifically proven in out Biological Institute. (p 110)

As Steiner here indicates, the process of eliminating weeds is one that takes place over a four year period, and peppering needs to take place each year. I will, hopefully starting this summer, begin a garden bed trial, where sunflowers are grown in the same soil over a four year period. Ashing will take place each year, and the seeds from the Sunflowers grown will be saved and planted into the same beds each year. In this way, a more natural process, mimicking what would take place in nature will occur. I will report the results over the next four years of this calendar.

Lunar eclipse experiment

This year there will be a total of four lunar eclipses occurring, providing an outstanding opportunity to study the effect of lunar eclipses on plant growth. The shadow of the first two of these eclipses will cover the area where I live (British Columbia) and the last two in the last half of the year will not. Previous research that I have done in this area has demonstrated that there is a significant negative correlation that reduces seed germination and subsequent plant growth when sowing occurs during an eclipse. I planted a total of 10 seeds in pots containing compost, each day over a four day period, with the last sowing occurring on the day of the eclipse. From the date of sowing to harvest was 23 days for each group of 10 seeds. The eclipse occurred on January 10 at 04:10 PST. The results are as follows:

	Germination	Total weight	Average weight/plant
January 7	7/10	15.3 grams	2.19 grams
January 8	8/10	18.7 “	2.33 “
January 9	8/10	14.4 “	1.80 “
January 10	9/10	16.8 “	1.87 “

It is interesting to note that in this experiment the best germination occurred on the actual date of the eclipse, but the average weights of the plants was significantly lower than that of the best plant weights, which occurred on January 8th, two days before the full moon, and subsequently, the date of the eclipse. This was again a very small trial, but is one that provides valuable information for future research. I would like to conduct a larger trial in the future, when a lunar eclipse occurs in spring, and allow the plants to reach full maturity to determine if the negative effects of lunar eclipses are overcome, or if they affect the plant throughout its life.

Future Directions: My wife and I have finally completed building our farmhouse on a 10-acre hayfield that we purchased 5 years ago. This has been a huge undertaking, and one that I have largely done by myself. In addition to the building of the house, we are also in the process of establishing a biodynamic apiary, which has now received organic certification, and as of the fall was up to 20 colonies. I have been developing ways of increasing colony numbers without using queen grafting techniques, which Steiner predicted would weaken the honeybee to the point of extinction within a century if not stopped. He made this prediction in 1923, ninety seven years ago, and last year American beekeepers reported their highest colony losses in history, at just over 40%. I hope to write about this work in the 2021 calendar. In 2020, now that the house is finished, I would like to conduct some larger scale planting trials, which will again compare Thun's trigon planting method to Steiner's indications given in 1923. These two methods are in

several ways diametrically opposed to one another, and if biodynamic agriculture is to take its rightful place in society, clarity in this area, through systematic research, needs to be done.

If you have any comments or questions about this calendar or my research in biodynamic agriculture or beekeeping, please do not hesitate to contact me at jbbach363@gmail.com.

Happy planting,
John Bach

October 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 full moon-14:06	2	3 apogee-10:22 Saturn ascending phase begins. Until end of year.
4	5	6	7	8	9	10
11	12	13 Mercury ascending phase ends SH	14 Mercury ascending phase begins NH Ends Nov 6	15	16-perigee-16:46 new moon-12:32 Fair planting day NH and SH	17
18	19	20	21	22	23	24
25	26	27	28 Very good planting days Oct 28-30 NH and SH	29	30	31 full moon-07:51

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November 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Mars ascending phase ends NH	2 Mars ascending phase begins until end of year. NH	3	4	5	6	7 Mercury descending phase begins. Ends Dec 25
8	9	10	11	12	13 Fair planting days NH and SH Nov 13-14	14 perigee-03:48 new moon-21:08
15	16	17	18	19	20	21
22	23	24	25	26 apogee-16:29	27	28 no plant days Nov 28-30
29	30 Lunar eclipse 01:43 full moon-01:32					

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December 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12 perigee-12:42
13	14 new moon-08:18	15	16	17	18	19
20	21	22	23	24 apogee-08:32 Good planting days NH and SH Dec 25-28➔	25 Mercury ascending phase begins. Until end of year.	26
27	28	29 full moon-19:30	30	31		

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