

*Please scroll down for the
Fall 2011 “Garden Companion”
(BfR’s newsletter)!*



The Garden Companion

Biointensive for Russia's newsletter

Vol. 14

Fall-Winter 2011

ECO-SCHOOLS / GREEN FLAG WORKSHOP

Igor Prokofiev wrote from Bryansk, back in May, that a second one-day workshop in GROW BIOINTENSIVE Sustainable Mini-Farming (GB) would be held in St. Petersburg in September by the Eco-Schools / Green Flag organization. This was exciting news, so I decided to plan my first trip to Russia in four years so I could participate.

Based in St. Petersburg, Northwestern Russia has been active for three years in the international Eco-Schools movement along with 50 other countries, including the U.S. See <http://www.nwf.org/Global-Warming/School-Solutions/Eco-Schools-USA.aspx>, and perhaps consider suggesting the program to a school near you!

Approximately a hundred biology teachers from St. Petersburg and many other cities of northwestern Russia participated in the conference, held in the auditorium of School No. 213 which has an English-language focus. I arrived for the second day, during which topics of interest to the teachers were presented: the use of games in teaching environmentalism to young students, social partnership in environmental education (GEM programs), the roles played by nonprofit organizations in environmental education, and spacebridges as a means of conducting modeling games in international education. Successful projects for which Eco-Schools teams had been awarded the Green Flag were also presented in breakout sessions.

Our GROW BIOINTENSIVE workshop, attended by 25 teachers (see photo to right), took up the third day. Representing BfR, I introduced the topic (in Russian) and presented the Grassroots Alliance PERESVET team from Bryansk (Igor, Oleg, and Natalya). A few of the participants had attended the first workshop that had been hosted by Eco-Schools and taught in St. Petersburg in May by Igor and Oleg. That's Olga Madison, Eco-Schools/Green Flag country director, in front in the photo to right.

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MESSAGE FROM THE DIRECTOR

The year 2011 has been an exciting one for me, in particular since I traveled to Russia for the first time since 2007, the year of my move to the Ojai Valley. I've described the trip in detail on page 2. If interested and you haven't seen it yet, write to me for an emailed travelogue with many more photos than I was able to include here.

Introductory workshops on GROW BIOINTENSIVE Sustainable Mini-Farming were presented by the Grassroots Alliance PERESVET in St. Petersburg (see article to left and photo at right), by Peace Corps Program Director Nicholas Bruno in Armenia,



and by Irina Kim here at Mulberry Haven.

Here in our Ojai Valley orchard, Kody Ryan offered two workshops – one on the propagation of fruit trees from cuttings and one on pruning. And local landscape designer Kate Riley gave a workshop on rainwater harvesting, after we installed five catchment barrels according to a system offered online by a Master Gardener.

We also funded PERESVET's experiment described on page 3, and completed the editing and publication of the Farmer's Handbook by Margo Royer-Miller and the Basic-Level Training Manual by Juan Manual Martinez de Valdez and Mercedes Torres. We have hopes for properly funding workshops, publications, and experiments in 2012! (See the article below.) This moment has been a long time in coming, but we feel extremely fortunate that it has come at all, in the current economic climate!

Carol Vesecky

PROSPECTS FOR NEW GRANT IN 2012 .

As you may know, BfR has been running for many years on grassroots funding. Your donations and the modest income from our ecotours have allowed us to support workshops in Russia and Uzbekistan, annual experiments in and near the Chernobyl radiation zone, and the publication of books and manuals. However, so much more could be accomplished with more substantial funding.

Currently we are hopeful of receiving a grant in 2012 that will permit us and our Russian partners to organize and fund the major workshops, publications, and experiments we've been planning for years.

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FALL FESTIVITIES AT BRYANSK OBLAST' SCHOOLS

by Carol Vesecky

In early September, before my arrival in Russia, two school principals in the Bryansk oblast', both BfR colleagues, joined together for a beautiful Harvest Festival. The vegetables on display (including the veggie omnibus at the top of page 1)

showed the effectiveness of their students' efforts in providing wholesome, Biointensively grown produce.

Natalya's village school is the one whose students won prizes in 2009 for Biointensive experiments that compared compost with chemical fertilizers in sandy soils. (Compost won, of course!)

Their results were displayed in a national exhibition in Moscow. -- see a report in BfR's 2009 newsletter, posted on our Web site.

The children carved jack-o-lanterns from the pumpkins grown in their Biointensive garden for the harvest festival, and the children at Natalya's village school (see above) carved many more to co-celebrate Halloween (our festival, not theirs) with their American counterparts on October 31. Three girls dressed up as bats, and the school chef prepared pumpkin kasha by a traditional recipe to serve in the school cafeteria for lunch.

Students at both K-12 schools are active in Eco-Schools/Green Flag activities, and are enthusiastic participants in international projects. Both schools signed on to the U.S.-Russia Virtual Science Challenge for Youth project that would have given their students the opportunity to work collaboratively with students in the U.S. on GROW BIOINTENSIVE and other sustainable living topics. Support has not yet been procured for this program by Knowledge Building In Action, the Florida nonprofit that has been proposing for funding, but we're encouraging its executive director, Sandra Lund Diaz, to keep grantseeking! ♦



Oleg Zavarzin and Natalya Koryagina (from Domashovo's village school) in the gym at Oleg's School #56 in Bryansk



CAROL TRAVELS TO RUSSIA TO ATTEND ECO-SCHOOLS CONFERENCE AND GB WORKSHOP

Arriving from JFK at Moscow's Domodedovo airport in the morning, I had plenty of time to buy a cell phone and arrange to meet Evgeny Shmelev at the Leningradskaya railroad station well before my departure for St. Petersburg. Evgeny brought me 100 copies of the basic-level GB teacher manuals that BfR had translated and edited. (They had been printed in Novo-Sin'kovo to be in time for distribution at the workshop in St. Petersburg.) Evgeny also brought 50 copies of the Russian translation of *How To Grow More Vegetables...* that he has been storing for us at the Educational Methods Center, where we have held GB workshops in the past. Each teacher would receive one copy of each.

In the early morning after a comfortable overnight train ride, I was met by Igor Prokofyev and Oleg Zavarzin at the station in St. Petersburg. Dragging my rolling luggage containing the books and manuals, they escorted me to the student hotel where I shared a room with teachers Natalya Koryagina and Oksana Shevko from Bryansk.

I checked in and changed clothes, then the four of us departed by Metro for the school No. 213 where the Eco-Schools/Green Flag conference was being held. The state-sponsored school appeared to be very well run, in the high tradition of Russian pedagogy. The classrooms were well equipped, photos of student activities lined the halls, and the boys in suits and ties and girls in modestly attractive dresses were well behaved.

After the conference (described on page 1), we had the weekend to look around St. Petersburg and get together with friends. Regretfully, I missed an excursion to Pushkin – formerly known as Tsarskoe Selo or the tsar's village – that Olga Madison organized the evening before our GROW BIOINTENSIVE day. Attending would have been pushing my luck, considering my sleep debt from overnight travels, and my needing to prepare for my introducer role the next day.

Albina Kochegina, who described her experiences teaching GB to middle school students during the seminar, invited me to dinner along with Yury Azovtsev and Olga Shestakova. Olga had been in California back in January after visiting her daughter in Colorado, but I had not seen Yury since 2005. He and I had worked together via email for many months on the *Sustainable Vegetable Garden* translation, so BfR owes him a debt of gratitude.

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Olga and Albina in the entryway to Albina's apartment block, with a Black Sea mural as backdrop

Reports from the Grassroots Alliance PERESVET

GROW BIOINTENSIVE EXPERIMENTS IN 2011 IN THE BRYANSK OBLAST' by Igor Prokofyev

In 2011, the Grassroots Alliance PERESVET conducted two types of experiments:

1. Utilization of GROW BIOINTENSIVE Sustainable Mini-Farming (GB) techniques in two types of soils
2. Utilization of GB techniques in the radiation zone to obtain yields with decreased contamination by radionuclides

Members of the NGO Alliance PERESVET and two Bryansk oblast' schools volunteered to participate in the experiments. The schools were the Domashovo village school (located near Bryansk, the oblast's capital city) and School #56 in Bryansk. The first experiment was conducted at dacha plots near Bryansk and in Domashovo. The second experiment was conducted in the village of Krasnaya Gora, in an area that had become radioactively contaminated after the Chernobyl nuclear accident in 1986.

The first experiment: description and results

The Bryansk region has a major problem with soil fertility, as do other regions of Central Russia. Much of central Russia's soil is non-chernozem (non-black soil), being partly sandy and partly clay soil. These soil types are not well suited for cultivation of vegetables. Some gardeners attempt to improve their soil by various methods which generally are not environmentally sound, and involve the use of chemical fertilizers.

The chief aim of the experiment was to test GB in varying types of soil. We tried to answer one important question: Can GB improve both sandy and clay soils?

We recruited volunteers from our organization whose garden plots have varying soils. We created the first experimental plot in the village of Domashovo. The local school, especially its director Natalia Koryagina and the teachers, were very active in the experiment.

Domashovo's soil is very sandy, including on the school grounds; nevertheless the school created a new garden in 2010. The teachers and children find it difficult to keep the garden watered, because the soil does not retain moisture. Soon after being watered, it becomes dry. The school finds it very expensive to water a garden, as also do families in Domashovo. Another problem is low yields, because the sandy soil does not contain enough nutrients for good plant growth. The local and school gardeners have tried using chemical fertilizers to improve their soils.

In the experimental garden we made beds of two types:

- Control beds, and
- GB beds.

In the control beds, we used chemical fertilizers and conventional spacing between plants in the beds. We used the amounts of chemical fertilizers specified for crops in

the local Agronomical Handbook. In the GB beds we used compost (we brought GB compost from other GB gardens) and close spacing, according to the Master Charts in the book *How to Grow More Vegetables...*. We did not use double-digging, because sandy soil doesn't require it.

The other experimental plot is located in the dacha area near the city of Bryansk. This area has clay soil, which can hold water and nutrients, but the clay prevents air from reaching the plant roots. During rainy days, surplus water can further decrease the amount of air reaching the roots.

We assumed that GB can improve the structure of the clay soil and reduce its negative effect, since the compost provides pore space. As in the first garden, we prepared beds of two types: control and GB beds. Additionally, we double-dug the GB beds.

In both gardens and types of beds, we planted the same crops: potato, onion, tomato, carrot, cabbage, pepper, and watermelon. We chose the same variants for all of our beds. In the autumn we gathered the harvest and compared the yields. Our results can be seen below in Table 1.

Table 1: Comparison of yields from experimental plots (kg per 10 sq m)

Crops	Soils: Sandy			Clay		
	Beds: Control	GB	% increase	Beds: Control	GB	% increase
Potato	64.5	79.5	23	47.6	83.2	75
Onion	72.3	88.2	22	68.0	78.2	15
Tomato	95.4	121.7	28	54.1	62.2	15
Carrot	77.1	82.9	8	45.8	68.1	49
Cabbage	45.4	76.8	69	48.2	67.3	40
Pepper	4.2	5.7	36	3.8	4.9	29
Watermelon	32.1	39.6	23	22.5	34.5	53

As we can see in this table, the crop yield in GB beds is larger than in the control beds. But crops react to GB in different ways. Some crops demonstrate a large increase relative to the control, while others do not. But we can draw the conclusion that GB improves soils and the conditions for crops in beds. Close spacing creates a living mulch, protecting the soil from the sun and retaining water in the soil. The compost component provides nutrients to plants gradually, little by little. It prevents leaching of nutrients to deeper levels. And we can make the assumption that in the next growing season, a positive effect from GB will be observed. Particles of compost will be in the soil, and they will improve its structure.

Based on these results and those of past years, we will write a booklet for gardeners on "How to improve my soil by using GROW BIOINTENSIVE." We are sure this booklet will be popular among gardeners. Our recommendations will help people obtain good and healthy yields in sandy and clay soils.

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Igor had prepared a 55-slide PowerPoint presentation, beginning with Ecology Action's announcement of their 40th anniversary celebration in Willits. After he presented GB sustainability basics, Oleg (who teaches biology and geography in addition to serving as school principal) described the biota in the soil and the GB composting process. He told us that "a handful of soil contains more living organisms than there are creatures on our planet!"

Natalya explained the importance of starting one's own seedlings, and described the transplantation process using hexagonal spacing. She also discussed companion planting, of which her own garden is a prime example! Photos are online, and we'll send a link in a future email update, or feel free to be "invited" to view them.

Before the end of our morning session, Albina Kochegina arrived to tell about the ten years she spent teaching GB in an extracurricular program for middle-school students at the Alive Earth Center in St. Petersburg. (See our articles on the Young Naturalist/Yunnaty program and the horticultural experiments conducted by Albina's students at <http://biointensiveforrussia.igc.org/docs/spring2002.pdf>, pp 5-6.) Albina has authored several books on alternative therapies, most recently on Su Jok, involving hand and foot acupuncture and application of specific seeds to pressure points. We then enjoyed a good lunch of borscht, cabbage salad, and a meat dish garnished with vegetables in the school cafeteria. This is typical fare for the students.

After lunch we peered out a window and saw a downpour; thus the double-digging demo turned into a "dry run" on the stone floor in the school's entrance hall. That's Igor with a teacher participant and coordinator Olga Madison on the right. Having practiced double-digging over the summer at her country dacha after attending the workshop in May, Olga was already a GB gardener.



Igor and I had worked together via email prior to my trip to prepare certificates for all the participants. At the end of the GB theory session, we awarded them to the teachers, signed by Igor, Olga, and myself on behalf of the three cosponsoring organizations. I had the honor of presenting each teacher with her certificate, as Olga read out the names. I then presented Olga, Igor, Oleg, and Natasha the "Too Big To Fail" T-shirt from Ecology Action showing Earth



photographed from space. (It's a handsome shirt, so let me know if you'd like to have one and I'll obtain some from Ecology Action to pass on.) A lively Q&A session followed, with students and parents present, as school was letting out by this time.

A teacher named S.A. Vodovozova, in gratitude for the *How to Grow More Vegetables...* book and Biointensive Training Manual translations she had received, gave me her book on pedagogy whose title could be translated as "Let's Stride Ahead to Success!" It focuses on a new field in Russian pedagogical psychology called "acmeology," which could be defined as a striving for excellence in personality.

Following the workshop, we feel justified in believing that we have another 25 teachers prepared to test and teach the method that can save the earth's resources while producing abundant food for future generations! ♦

Prospects, continued from page 1 Details of the grant will be revealed soon via email. For now, I can write that we hope to support two major workshops during 2012.

The first will be held in Bryansk for regional teachers, including some from Ukrainian and Russian towns with Chernobyl support centers. The second will be held in Novo-Sin'kovo for our Eurasia network, and will be taught by Steve Moore, who successfully presented three workshops in Russia in 2002. (Steve now lectures in environmental studies at Elon University in North Carolina.) Teachers in several Eurasian countries will be invited to this workshop. Eurasian participation in Ecology Action's workshops in Willits is also envisioned.

We're looking forward to being able to support printings of the Russian translations of *The Sustainable Vegetable Garden*, and the *Basic-level Biointensive Training Manual* translation. Not to mention editing and printing of two books by John Beeby, *Test Your Soil With Plants* and *Future Fertility*, that have been translated by BfR!

Carol's Travels, continued from p. 2 four of us spent a lovely evening in Albina's apartment. Alas, our mutual friend Volodya Shestakov could not join us, as he was away at his dacha in Karelia, near the Finnish border.

Meantime, the trio from Bryansk returned home by train, an 18-hour journey from St. Petersburg. Originally I intended to accompany them, but changed my plans when I learned that BfR's Web master Berta "the Hippo" Pires would be in Moscow for part of a day en route to Tashkent for a tour of the five Central Asian republics. I decided to return to Moscow in time to meet her at Sheremetyevo and give her a taste of the Russian capital.

I could not leave for Moscow without meeting Nataliya Demenkova, who worked on the editing and layout of both manuals we've been preparing for use this year. (One of these, as mentioned in Part I, was

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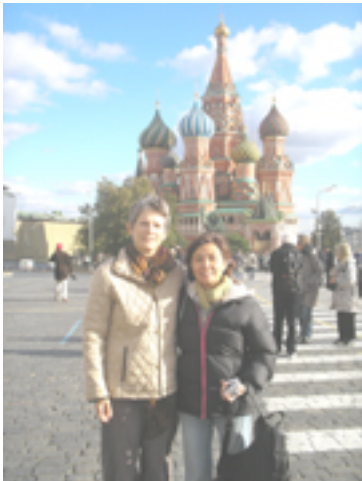
Travels, cont'd from p 4
 printed in time for the workshop; the other we hope will be uploaded to the Web very soon.) Nataliya spent some hours away from her husband and daughter on Sunday afternoon to join me. We met at a Metro stop and walked to her work place where we got better acquainted in the company lounge.



Nataliya Demenkova at her desk

That same evening at the Moskovskaya railroad station where my luggage had been stowed, I boarded the train for **Moscow** and “rested” overnight. (I found it impossible to sleep, even though my upper berth was comfortable). It was inconvenient to stay with friends this time, so I had booked space at an inexpensive hotel, which the booking service advertised as having wi-fi. Arriving with my bags, I learned that this was a myth – there is no wi-fi in that part of Moscow! Since it’s a high priority for me, I decided to find another place to stay where there was wi-fi. But needing to meet Berta first, I made my way to the Belarusskii railroad station that has an electric train link to Sheremetyevo and stored my bags in a locker.

Berta’s and my airport reunion and ensuing trip back into Moscow to Red Square went smoothly. But due to the need to book another hotel for the night, I left Berta to walk around by herself while I found an Apple computer reseller from which to use the Internet in the luxury shopping center still known today, as in Soviet times, as GUM.



Carol , Berta, and St. Basil's Cathedral in Red Square

Returning to Sheremetyevo, I saw Berta off for her 3-week visit to Central Asia – for her architectural photos see her site <http://www.kelt.com/hippo/travels/> . Then I took a taxi to the newly booked hotel, which proved to be pleasant – but, again, had no wi-fi, as it had not yet reached that area of Moscow. I learned that people in these situations can buy a small USB

modem for \$50 and pay \$30/month for 4G service, so I’ll have that in mind for the future. Outcome: I made arrangements to travel to Bryansk a day earlier than planned.

Across from the Kievskaya railroad station (in the direction of Bryansk) lies a 6-story shopping center, with a skating rink on the top level. It is incredibly 21st century, with glitzy lighting, fancy ads, and hundreds of shops selling jewelry, electronics, toys, and much else, but largely clothing with fancy

labels, especially for children. Nearly everything on sale is imported (this was nothing new to a visitor from the U.S.!) but with labels often misspelled in latin letters, or transliterated into cyrillic with comic effect to those of us who could decode the original.

During my overnight ride to **Bryansk** I shared a compartment with a youngish woman, a lawyer who worked for the railways, and we had a pleasant conversation and exchanged email addresses. She had traveled on business from Bryansk to Moscow, to Tula (near Tolstoy's estate, Yasnaya Polyana), back to Moscow, then overnight to Bryansk, all in 24 hours. Oleg, Igor, and Igor's wife Tatyana met me at the station with the car Tatyana borrows from her father. They drove me to Oleg's mother's apartment where I would rest for the day before booking into a room at a hotel owned by one of Oleg’s friends.

Oleg's mother Polina is approaching 90, but still manages well with daily visits from Oleg, who lives nearby. She is a WWII veteran, having served in an anti-aircraft brigade, and has a good pension due to her war service. She stays current with world affairs by watching TV, and we had a lively conversation.

Next on the agenda was a visit to the popular, award-winning Park-Museum honoring Count Aleksei N. Tolstoy, an important 19th-century author of historical fiction. The park features many beautifully carved, life-size wooden sculptures of figures from Russian fairy tales. The devils operating a water mill that we had seen in 1999 on our first visit to Bryansk have since been replaced by comic dwarfish figures, at the behest of the clergy at an Orthodox church that had been restored nearby. Baba Yaga remains with her ever-present owl and black cat (see right). The early fall weather was splendid, so it was a perfect day to continue sightseeing, and Tatyana drove us to the Svensky Monastery just outside Bryansk. Dating back to the 16th century or earlier, the monastery is located near a tree where an icon was found that miraculously restored a Rurik dynasty prince's sight in the 13th century.



Just beyond these walls lies an apple orchard that was tended by the monks before the monastery was destroyed in early Soviet times. Oleg Zavarzin's students have started an Eco-Schools / Green Flag project to research the varieties and try to restore the orchard to its former health and productivity.

Oksana Shevko, who shared a room in St. Petersburg with Natalya Karyagina and myself, invited me to introduce GB to her class at the lyceum (high school with emphasis on science and *continued on page 6.*

continued from page 5 technology) in Bryansk where she teaches biology. Inspired by the success of my experience in St. Petersburg, I accepted her offer.

On my arrival, I.A. Afonin, the principal, welcomed me in his office and explained the differences between a lyceum (*litsei*, a science-oriented high school), a gymnasium (a humanities-oriented high school), and a regular school (K-12, with no specialization). He then presented me with a book on the lyceum's proud history that was published in 2007.



Yours truly with Oksana at Litsei No. 27

Oksana turned the entire class hour over to me for the introduction to GB. This was not difficult, as Igor had provided me with his 55-slide PowerPoint demo on a flash drive. And I *have* had over 30 years of experience practicing the method!

A map in one slide shows the percentages of agricultural lands being farmed organically in European countries. In Russia, Ireland, and Iceland (and others), less than one percent is currently farmed organically, while in Austria, Switzerland, and Portugal, more than 10 percent is organic. Both categories of countries have a long way to go! Using Igor's PowerPoint I covered the eight components of GB, and the students and I had a lively dialogue. Many of them have experience in gardening at their families' dacha plots, and for some, the gardens provide a substantial amount of food.

On another day, Tatyana, Igor, and Oleg took me to visit the WWII memorial *Partizanskaya Polyana* (Partisan



The majority of these biology students were girls. Boys tend to study physics.

Meadow), which is two hours' drive from Bryansk. Monuments in bronze and marble portray the heroic defense of the USSR on its west-

ern borders by Soviet partisan fighters. The Bryansk oblast' was occupied by the Nazis at the time. The partisans came both from the regular army (based in nearby unoccupied USSR) and from the population. They were credited with major disruptions of the flow of war materiel by attacking railroad trains. A marble wall had 8000 names of war dead

inscribed in it. Bronze statues of the fighters, original tanks, and an obelisk symbolizing the antiaircraft actions are also on display. It is still possible to enter many dugouts where the partisans, as well as some women and children, slept on platforms made of logs and cooked on kerosene stoves. Fir branches on the platforms served as mattresses



Drapes symbolize the forest cover that camouflaged the artillery and partisans

On the Sunday afternoon before my departure for Moscow, we all drove out to Domashovo to visit Natalya. Her home, just a few doors away from the school where she is principal, had recently been built by her husband Mikhail.

Natalya's mother also lives close by, and brought me the traditional bread and salt as a welcome. Oleg pulled a huge daikon radish and a bunch of good-sized carrots out of the garden, and he and Tatyana helped Natalya prepare the meal. Here's son Sasha with one of the family's rabbits; do write me for an email travelogue with more photos of the visit!



My second stay in **Moscow** went far more smoothly than the first, as Larissa and Sasha Avrorin were able to host me in their newly redecorated apartment. (Those who have followed BfR since its beginnings may remember that they have been friends and BfR collaborators since 1994 when they lived in Novosibirsk and worked at Ecodom.) Larissa filled me in on the non-profit scene in Russia, which is "managed" as is the "democracy" there, but she believes that good work is being accomplished. On the sightseeing side, I spent two fascinating hours at the International Center of the Roerichs; see <http://en.icr.su/e>

En route home, I had an enjoyable visit with my son Stephen in **Brooklyn**. Then I headed to **Lynchburg**, Virginia where my sister-in-law, Bonnie Benedict, had offered to host me so I could make a presentation at the Unitarian-Universalist church there. Due to the trip's success, I was inspired to write to Larry Symonds, a BfR advisory board member as well as active church member, who willingly set up a post-church service talk. Church members and Master Gardeners attended, including David Lowry whose highly productive garden I visited on Monday. We spent a lively 2 hours with the Russia trip and the GB method.

Similar happened at St. Andrew's in Ojai (for just an hour). I'm available for further talks; so just ask! ♦

We organize GROW BIOINTENSIVE Sustainable Mini-Farming and orchard culture workshops in the Ojai Valley. If you live locally and are not yet receiving our emailings, be sure to write <cvesecky@igc.org> or call to sign up!

Note: You may be interested in a fascinating blog posted by an American married to a Russian woman, living in a Russian village. It contains comparisons of life in the US and in Russia; see <http://amrusob.blogspot.com/>.

Another view is offered by the folks at Friends House Moscow, which was

VOLODYA LOGINOV WRITES FROM SOUTHERN RUSSIA

Hi Carol,

My gardening this year was limited to helping my mother prepare, plant, and water her garden beds. All summer long she spent every hour of sunlight out there!

I continue to work in straw-bale construction projects, training the workers, organizing their work, and providing the equipment for spraying clay on the walls. From August to November, we built a 3-story hotel, 30x30 meters, in Kropotkin, which lies 100 km from Kurgansk. A team of workers from



established about the time BfR got started. The newsletter: <http://fhm.quaker.org/newsletter024> and their Web site: <http://friendshousemoscow.org/>. They do worthwhile work; have a look! -cbv

Molodova is there now, completing the building with a clay coating.

Andrei Rudomakha [longtime director of the Northern Caucasus Environmental Watch, with whom Volodya has collaborated in the past -cbv] held a conference in October where he was nominated by the Yabloko party to represent the Krasnodarsky krai in the state Duma. This past Sunday, his name was on the ballot, and everyone who knew him naturally voted for that party. Unfortunately, Russian elections are still not being conducted in a fair manner.

Thanks for the photos and materials about your seminars. I hope to see you soon, in your area if not in the Russian expanses!

-Volodya

OUR SUPPORTERS HAVE BEEN GENEROUS! TALLY FOR JANUARY 2009 TO DECEMBER 2011:

Supporters: Barbara Brown • James & Catherine Norris
Contributors: Bonnie Benedict • Lois Benedict • Bruce & Kathy Craig • Joyce & Jim Harris • Lyn Hebenstreit, Tara Blasco & Monica Marshall • Jacky Hood • Joseph Jedeikin • Margarita Orlova • Raymond Powers • Jan Secor • Mary Beth Train • Tom & Joan Webb • Ron Whitehurst & Jan Dietrick
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How You Can Help!

Purchase a book! We now have copies of the Russian edition of *How to Grow More Vegetables* here at BfR for sale at \$20, plus postage. Write Carol for details. See www.bountifulgardens.org for GB books in English and other languages.

Contribute financially to sponsor:

- Natasha Demenkova's salary for one month to translate and edit the publications listed below and to fill book orders in Russia from her base in St. Petersburg: \$500
- a workshop to be presented by the **Igor Prokofiev, Oleg Zavarzin, and/or Natasha Koryagina** to various groups in Bryansk: \$2000 - \$5000
- editing and printing of the translation of Ecology Action's *Test Your Soil With Plants* by John Beeby: \$3,000
- printing of the **GROW BIOINTENSIVE Basic-Level Training Manual**: \$1 per copy OR printing and paper to publish *Ekologicheskii Ogorod* (Russian translation of *The Sustainable Vegetable Garden*): \$4000 will pay for 5000 copies, smaller amounts for smaller editions

Network with foundations and major donors to help us find funding for programs to include one, some, or all of the above activities (write or call Carol to discuss priorities)

Volunteer your time:

- hosting, organizing, and/or publicizing events
- co-developing a future Eco-Ag tour to the region of your interest in Eurasia. Help research tourist attractions & travel costs

Here's my tax-deductible contribution to Ecology Action for a membership in Biointensive for Russia:

☐ \$1000 Workshop Sponsor* ☐ \$250 Supporter* ☐ \$100 Contributor* ☐ \$50 Donor ☐ \$20 Member ☐ Other

*May receive the ☐ 2nd Russian ☐ or 7th English edition of **How to Grow More Vegetables** (Check box)

Name: _____

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Ph/fax: _____ E-mail _____

Mail to: BfR, 913 Oso Road
Ojai, CA 93023-9514

Be sure to write your check to "Ecology Action" for tax deductibility!

Events Upcoming in 2012:

For announcements of GROW BIOINTENSIVE Sustainable Mini-farming and orchard workshops and tours at Mulberry Haven in 2012: sign up for BfR's email announcements by writing to <cvesecky@igc.org>

Saturday a.m. gardening classes at Common Ground Center in Palo Alto: see www.commongroundinpaloalto.org

Eco-Farm Conference "Raising EcoFarmers' Voices!", Asilomar, Pacific Grove, CA, Feb. 1-4, 2012, see www.eco-farm.org

The Russian Festival, 2450 Sutter Street, SF, Feb. 20, 21 and 22, see russiancentersf.com

GB Sustainable Mini-Farming Workshop, Willits, CA, Mar. 2-4 and Nov. 2-4, see www.growbiointensive.org/workshop.html

Experiment, continued from page 3

The second experiment: description and results

Radioactive contamination of soil is a global problem. Many countries have nuclear power plants and other industrial facilities that use radionuclides and atomic energy. Accidents have occurred in various countries. The biggest accidents were in Chernobyl, Ukraine (1986) and Fukushima-1, Japan (2011), causing the dissemination of radionuclides in the environment. Some radionuclides have a short life, while others last for a very long time. Experiments at Chernobyl demonstrate that cesium-137 is the most dangerous radionuclide for humans. The half-life of Cs-137 is 33 years. It means that cesium will have an impact on the environment and on people for decades. Cs-137 can migrate in the food chain, so it can be ingested in the human body via food. Many studies have demonstrated that Cs-137 can accumulate in the body, and it is the cause of many diseases in humans.

Many people live in radioactively contaminated regions in Belarus, Ukraine, and Russia. The southwestern portion of the Bryansk region, where people continue to

live, is contaminated. The residents have no money for moving their homes to other regions, as they are very poor. Out of necessity, they cultivate vegetables in their contaminated gardens. Our mission is to help people to grow vegetables and to get yields with the least possible quantity of radionuclides.

For our experiment, we used two garden plots with the same soil type (sod-podzolic soil). These gardens also have the same level of contamination. According to the Russian classification, their level of contamination by radionuclides was average. We planted the same crops in both gardens. In the table below you can see our results.

Table 2: Cs-137 content in crops (Bq/kg) in harvests from control and GB beds

Crops	Control beds	GB beds	Percent reduction
Oats	0,25	0,08	68
Winter rye	0,04	0,03	25
Barley	0,07	0,06	14,3
Pea	0,55	0,41	25,5
Corn	0,05	0,03	40
Potato	0,06	0,02	66.7

The results of our experiment demonstrate that GB can decrease contamination by radionuclides. In some crops, the reduction can be 68%. Compost and double digging can decrease migration of Cs-137 into roots and harvestable parts of the plants.

Based on our experiment, we will write a booklet on "How GB can protect my health from radiation." We will develop recommendations for people who live in conditions of radioactive contamination.

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or (in Russian) <http://www.biointensive.newmail.ru>

BfR is a non-profit project fiscally supported by Ecology Action, a California 501(c)(3) organization. Its mission is to share information between the US and Eurasia on environmentally sound lifestyles, including GROW BIOINTENSIVE Sustainable Mini-Farming. Carol Vesecky is Director and newsletter editor; our Advisory Board members are David Buckley, Sylvia Ehrhardt, Anya Kucharev, Liza Loop, Larry Symonds, and Erin & Doug Wood. Our webmasters are Berta Pires, Tamara Kowalski, and Shoshana Billik. The mailing of this issue of the *Garden Companion* was made possible by member donations. Do visit our Web site or write to Carol for more info!

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