

**Zakarpatskij Institute of Agroindustrial Production of UAAN**

**Mandate from SAVE – Monitoring Institute  
to establish a collection of old local fruit varieties in  
Transcarpathia, Ukraine**

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**Second intermediate report  
November 2009**

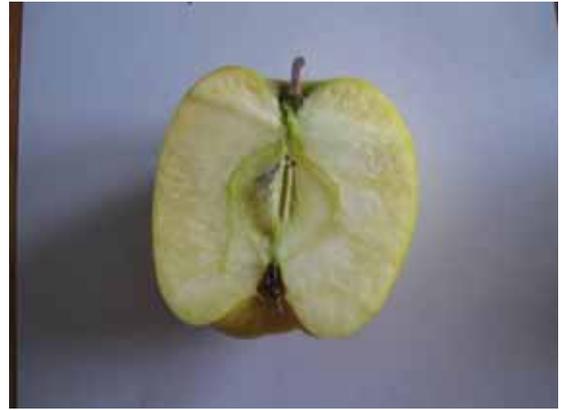
Executor Nadezhda Pilipchinets



## THE DESCRIPTION OF THE APPLE-TREE SORTS

### The old and local origin sorts.

#### Yellow Belfler (Citronki)



This sort is known as Citronki and it is selected in a low-laying area and pre-mountain area. It behaves to the group of sorts which has been saved only in the separate private gardens.

The trees have strong force of growth with a widely pyramidal rare crown. This sort is well adapted to the terms of Zakarpattya. The sheets are large, brilliant, and rifle-green, have egg-shaped or extended form with a thick petiole and poorly developed stipule.

The fruits have extended-conical form, with the ribbing, especially in the overhead part. The colour of the fruit is lemon-yellow, with dissipated ferruginous points and a blush near basis. The crater is narrow, deep with ferruginous colour. The peduncle has middle length and thickness, sometimes square-headed. The bowl is closed, and covered with grey-green fuzz sepals. The patellula is middle depth and width, the seed chambers are half-open. The pulp is creamy, dense, finely grainy, has sweet-and-sour taste with a pleasant aroma.

**Bespodobnoe Khabberstonskoe (Hubbardston, Hubbardston nonesuch, Hubbardston pippin)**



This sort is known under the name of Hubbardston in Zakarpattya. It is selected in the pre-mountain area. This sort behaves to the group of very old sorts which has been saved only in the separate private gardens. The trees have strong force of growth with the wide rounded crown and productive. The fruits are beautiful, average size, have rounded peg-shaped form, poorly ribbed, and well leveled after a size. The patellula is wide, deep with knobs. The bowl is opened and large. The peduncle is thick, short, straight or crooked. It is hidden in a small ferruginous colour crater. The rind is yellow and covered by the cherry red blush on almost all the surface of the fruit, with the spots of more intensive raspberry color and brown dots. The pulp is cream-white, dense, tender and juicy, and has sweet vine taste.

## Dovganiki



This is the local origin sort. It is selected in the pre-mountain area of Zakarpattya. The trees have strong force of growth with a spreading crown, undemanding to the conditions of growing, are hardy to illnesses and pests. On the tree the one-year escapes are covered with fuzz, the buds are little and flattened. The leaves have egg-shaped form, asymmetrical, with saw-toothed edges. The plate of leaf is tender and below covered with fuzz. The petiole is long and thin. The fruits have widely peg-shaped form, unequal-sided, with the poorly expressed ribs. The rind is thick, hard, with a fat bloom. The basic colour is yellow with the blush of darkly raspberry color which covers almost the entire apple. The crater has middle depth, narrow, with ferruginous walls. The peduncle is short and thick. The bowl is closed, with the green narrow covered with fuzz sepals. The patellula is deep, narrow, with the wrinkled bottom. The seed chambers are half-open. The pulp is white with a rose tint near the rind, middling juicy, has sweetly sour taste. The fruits are well saved for the long time.

## **Divoche (Kishoson')**



This is the local origin sort, has been saved only in the separate private gardens. The trees have middle force of growth with a spreading crown, moisture-loving, are hardy to the mycotic diseases. The one-year escapes are greenish brown and covered with fuzz. The leaves are light-green, large, have oval form with saw-toothed edges. The plate of the leaf is tender, thin and is arcuated on a central vein, a little wavy. The petiole has middle length. The fruit has regular trivial rounded shape, of the same type. The rind is thin, smooth with a fat waxen bloom. The basic colour is light-green with the beautiful washed out raspberry blush. Sometimes there are spots of rust on the blush. The crater is deep, narrow, and slightly ferruginous. The peduncle is average. The bowl is closed with the little covered with fuzz sepals. The patellula is wide shallow and wrinkled. The seed chambers are half-opened or opened. The pulp is white, tender fine-grained, with very pleasant sweetly sour taste. The fruits well transportable and save their taste in natural conditions till February.

## Beauty of Zakarpattya (Shikolai)



This is the local origin sort. It has been saved in the separate private gardens. The sort is undemanding to the conditions of growing, hardy to illnesses and pests, and highly productive. The trees have middle force of growth with a spherical thick crown. The one-year escapes are darkly cherry from a sun side and greenish brown from a shadow with light lenticels. The leaves are light-green, have middle sizes, egg-shaped or extended egg-shaped form. The edge of the leaf is saw-toothed. The plate of the leaf is arcuated on a central vein as a boat, from below

poorly covered with fuzz. The petiole is middle thick, strongly covered with fuzz and violet near basis. The stipule is little. The buds are little, well covered with fuzz. The fruits are located in groups, have middle size, unequal-sided. Their form changes from trivial rounded to cone-rounded. The rind is smooth, very dense, and rough. The fruits are greenly-yellow and covered with washed out raspberry blush. There are many hypodermic points which are shallow and brown. The crater is widely opened narrow and ferruginous. The peduncle is short and middle thickness. The bowl is closed, with green sepals. The patellula is shallow, narrow with shallow wrinkles, covered with fuzz. The seed chambers are half-opened. The pulp is white with a light-green tint, rough, dense, not juicy, has wine-sweet taste, with insignificant acerbity and tender weak aroma. The fruits are hard. They do not rot and do not fade during storage, well transportable and save their taste till May.

## Gipsy

(Krasnaja korolyka in Moldavia, Czigany alma, Fekete masanczi, Brauner Matapfel.)



This is a very old sort that has been saved in separate private gardens. Some trees are over 80 years old. The trees have strong force of growth with widely pyramidal crown. This sort is frost-hardy not demanding to soils and enters early in fruiting. The fruits have winter terms of ripening, average size and trivial rounded form. The rind is smooth, brilliant, fully covered with raspberry red blush on which background are selected more dark spots. The fruit is covered with thin mucus. The pulp is light-rose, dense, juicy, has sweetly sour taste. The patellula is wide with wrinkles. The bowl is half-closed. The peduncle is thick, short with a bulge on the end. The crater is large deep slightly ferruginous. The fruits are ripening at the end of September.

## Barilkove



This is the local origin sort. It is widespread in the pre-mountain area of Zakarpattya. The trees have middle force of growth with a sparse delicate crown. This sort is not demanding to soils. The one-year escapes are dark cherry covered with the grey fuzz. The leaves have middle size and oval form. They are unequal-sided, light green with crenate edges. The plate of the leaf is mat, coriaceous, covered with fuzz on the bottom side. The central vein is coloured from the bottom side. The petiole has middle size, red color with short subulate stipules. The fruits have rounded conical or truncated conical form. In the middle the fruit is wide and to the top narrowed, poorly ribbed. The ribs stretch from a bowl to the crater and end with wave basis. The rind is tender, dense, with a waxen bloom. The basic colour is straw-yellow with the washed out raspberry blush on a sun side, and sometimes near the crater. The crater is narrow deep and ferruginous. The peduncle is middle, woody, and square-headed. The bowl is closed or half-opened, middle sizes. The patellula is shallow with the wrinkled ribbed walls. The seed chambers are opened, the walls are chapped. The pulp is creamy, middle juicy, has wine-sweet taste, tender, with strong but pleasant acid and weak aroma.

### **Bojki (the local name)**



This sort is selected in the pre-mountain area of Zakarpattya. By the separate signs it is similar to the sort Boyken (Boiken, Boiken – Apfel, Zlotka Boikena). The trees have strong force of growth, with a spherical crown. The leaves are large, mat-green and have extended form. The one-year escapes are a dark red, poorly covered with fuzz, without lenticels. The fruits are large and very large. They have rounded conical form, with ribs of different size, which stretch from the bowl to the middle of the fruit. The rind is smooth and fat by touch. The basic colour is light-yellow with insignificant washed out orange blush on the sun side. There are a small number of the grey spots on the rind. The pulp is white, juicy with acid taste. The fruits are ripening in the middle of September. This sort is used for the processing.

**The group of sorts of different origin, which was found in the old plantings**

### **Londons Pepin**



This sort is selected in the low-laying area of Zakarpattya. The form of crown is thick, trivial rounded. The leaves are light green, medium-sized, have egg-shaped, narrow form with saw-toothed edges. The fruits are different on a size, have rounded form with five knobs near a bowl. The rind is thin, smooth, fat, green yellow with a weak blush on a sun side. There are many hypodermic points which are light and well noticeable. The crater is widely opened, deep with the peduncle of middle length. The bowl is half-opened. The pulp is yellow, dense, has sweet taste with pleasant acid.

## **Shtettinske red**

This sort has been saved in the pre-mountain area of Zakarpattya. The trees have strong force of growth, long-lived, with the trivial rounded spreading crown and falling branches. The fruits have the flat rounded form and are unequal-sided. Sometimes there are blunt ribs on the fruit. The rind is smooth, tender and covered with washed out dark red blush with hypodermic points. The basic colour is yellow green. Sometimes there are warts on the fruits. The bowl is closed, with the green covered with fuzz sepals. The patellula is shallow, wide and wrinkled. The fruits are damaged by the favus. The pulp is light-green, tender, middle juicy, has sweet-and-sour taste with a weak aroma.

## Pineapple's Renet



This sort has been saved in the pre-mountain area of Zakarpattya. It has the local name - Limonka. The trees have middle force of growth. The one-year escapes have many leaves. The leaves are large, have egg-shaped or oval form with heaved up edges. The plate of leaf is brilliant, with finely saw-toothed edges. The petiole has middle size, covered with fuzz, from below painted. The stipules are subulate. The fruits have conical rounded form. The rind is smooth, dry, has lemon-yellow color with the golden-yellow on a sun side. There are ferruginous points of different form in a yellow halo dissipated on all of the fruit. This is the main characteristics of this sort. The crater is narrow, with gently ferruginous walls. The peduncle is short and thin. The bowl is closed or half-opened, with the bent sepals. The patellula is shallow and wide. The seed chambers are half-opened. The pulp is creamy, tender, a bit grainy, juicy, has sweet-and-sour taste with a strong pineapple aroma.

## THE DESCRIPTION OF THE LOCAL FORMS AND SORTS OF THE PEAR

### Chervonom'yakushna (local)



This is the local origin sort. It is selected in the village Gecha of the Beregivskij district. The trees have strong force of growth. The sort is undemanding to the conditions of growing, hardy to favus and compatible with stock of the quince. The one-year escapes are covered with fuzz. The leaves are dark green and have extended egg-shaped form with a long petiole which in basis has the red colour. The fruits have barrel shape with groove on the one side. The fruits weights are about 100-130 g. The rind is thick green yellow colour with washed out red blush almost on all of the fruit. The peduncle is long, middle thickness. The pulp is rose with more dark raspberry veins. This is the main characteristic sign of this sort. The fruit is middle juicy with sweet almost without acid taste. It is ripen in the end of July or at the beginning of August, does not peel off from the tree, but have a tendency to decay from the middle of the fruit. The fruits are use for consumption in a fresh kind.

## **SOLANKA**

This sort came from Czech Republic. It is widespread in the pre-mountain and low-laying area of Carpathians. The trees have strong force of growth with a widely pyramidal crown. It is not demanding to the terms of growing. The fruits have middle size (about 100-120 g), extended pyriform (as a bottle). The rind is thin, has lemon yellow colour sometimes with a weak blush and shallow ferruginous points. The peduncle has middle size, sulphur colour, a bit arcuated and located in a small crater. The bowl is half-opened, and located in the shallow uneven saucer.

The pulp is white, juicy, tender, has winy sweet taste with a pleasant muscat aroma. The fruits are ripening at the end of August and save their taste over a period of 10-15 days.

## **RUZHIVKI**



This is the local sort of unknown origin. The trees have strong force of growth and are not demanding to the terms of growing. It is widespread in the pre-mountain area of the Carpathians. This sort is selected in the village Zolotarevo of

the Khust district. It gives fruits annually, generously. The fruits have small size, about 20-40 g, pyriform, green yellow or straw-yellow colour. The peduncle is long and middle thick. The pulp is white, dense, and juicy with pleasant sweet taste. The fruits are ripening at the end of June or at the beginning of July. They contain a lot of sugar. Dried fruits are very sweet.

### **Magdalina (green Magdalina, citron de karm)**

This sort is of unknown origin probably west European. The trees have strong force of growth with the rounded branchy crown. The branches on the tree grow under a large angle. The one-year escapes are brown and incurved in an arc with brown lenticels. The leaves have egg-shaped form with expressed sharp tag and rounding basis. The sort is not hardy to the favus. The fruits are shallow with weight about 45-62 g. They have egg-shaped or globe-shaped forms. They are green with the weakly expressed marble blush. The pulp is creamy, tender, juicy with weak aroma, has sweet or sweetly sour pleasant taste. The fruits are ripening at the beginning of July.

## **THE DESCRIPTION OF THE LOCAL FORMS AND SORTS OF THE PLUM**

### **Uhorka domashnya (Domestic Hungarian)**

This is a very old sort of folk selection and the most popular in Zakarpattya. It is valued for the high productivity, excellent quality of the fruits and because the sort is not demanding to the terms of growing.

The trees have middle force of growth with reversed pyramidal or elliptic crown. The main branches are thin, long, grow under an acute angle.

The fruits have average size, extended egg-shaped or oval form, and dark blue colour with a warm grey waxen bloom. Their weight is about 18-25 g., sometimes 20-35g. The pulp is dense, juicy, has sulphur colour, fragrant with sweet-and-sour taste. The kernel is extended, well separated from pulp. The fruits are ripening at the end of August or at the beginning of September. It is well reproduces by the seeds.

### **Uhorka domashnya muscatna (Domestic Hungarian muscat)**

This sort differs from **Uhorka domashnya** by the muscat aroma of the fruits. The trees have middle force of growth. The crown is thin; the leaves are rifle-green with a short petiole. The fruits have normal shape with well expressed seam. They are ripening in September. The rind is dark violet with a warm grey waxen bloom. The hypodermic points are well noticeable, brown. The peduncle is long, about 21 mm, has middle thickness. The pulp is yellow green, dense, juicy with the strongly expressed muscat aroma. The kernel (21x12x6 mm) reminds the fruit of the Hungarian ordinary on a form.



### **Zakarpatska red (Mukachivska)**

This sort is valued for the high productivity and not demanding terms of growing. The trees have strong force of growth with rounded form of the crown. The leaves are large with a prolate sharp end. The flowers are large and white. The fruits weight is about 30-40 g. They have oval form, blue colour with a reddish tint. The pulp is yellow green, in the overripe fruits yellow brown, fragrant with mediocre taste. The kernel is average, partly separates from pulp. It use for the consumptions in a fresh kind, suitable for all types of the technical processing (except prune).

### **Duranciya**

This is the local origin sort, widespread in the Mukachivskij district. The trees have middle force of growth with a reversed pyramidal or elliptic crown. The leaves are large, have oval or extended-oval form. The fruits have average size, dark blue color with a reddish tint. Their weight is about 20-25 g. The pulp is sulphur, juicy and fragrant. The kernel does not separate from the pulp. The fruits are use mainly for the technical processing.

### **Mal'vazinka (peachy)**

The trees have middle force of growth. The crown has reversed pyramidal form, is not thick with a smooth and shiny darkly grey bark. The leaves are large, mat, rifle-green have widely oval form. The fruits are ripening in the second half of July. Their weight is about 60-80 g. They have rounded form, a bit oblate, unequal-sided. There is a small suture in the groove. The rind is thick but easily separate from the pulp. The main colour is purple orange with many rose hypodermic points. The pulp is golden yellow with more light veins, dense, juicy has wine-sweet taste with a pleasant aroma. The kernel has an oval small form, with weight about 1,7-1,8 g. The sort is valued for the high taste qualities, productivity and early ripening of the fruits.

### **Early apricot plum (Red early renklod)**

The trees have rounded crown. The branches grow under a right angle. The bark is strongly chapped, darkly grey. The one-year escapes are darkly violet with rounded ferruginous lenticels. The leaves are large, rifle-green, a bit wrinkled with crenate edges. The plate of the leaf has extended-egg-shaped form; a bit arcuated on a central vein, the top is incurved downward. The petiole is thick and short. The fruits are ripening at the end of July at the beginning of August. They have rounded a bit oblate, unequal-sided form. Their weight is about 50-70 g. The groove is shallow, well noticeable. On a top there are small brown ferruginous points. The peduncle is short thick placed in narrow, middle depth crater. The rind is sulphur with a dark rose marble blush with a thick violet bloom and many well noticeable orange points. At the mature fruits it easily separates from the pulp. The rind is thick, dense, has strongly sour taste. The pulp is orange green, dense, juicy, has sweet-and-sour taste with a tender aroma. It easily separates from the kernel. The kernel is little with weight about 1,3-1,8 g., brown, wrinkled. The fruits are very attractive and have good taste.

### **Local red plum (Irshavska)**

This is one of the few local red sorts of the plum. The trees have middle force of growth, and are not demanding to soils, are highly productive. The fruits are ripening at the beginning of August. They have the same form as Uhorka. The fruits weight is about 25-30 g with crimson colour and warm grey bloom. The pulp is dense, has sweet, mediocre taste, from the kernel separates hardly. The kernel is big. The fruits are use for the processing.

According to the agreement for the saving old local sorts and propagating the stocks for the apples were planted in spring. In August scions were taken and inoculation was done for the all sorts of the apple in amount of 15 pieces of each.

### **The list of inoculated sorts**

Gipsy, Barilkove, Povzman, Beauty of Zakarpattya, Batul Red, Fercovanya, Gubarston English, Planerki, Dovganiki, Ferkovanya red, Divoche, Shtettinske red, Batul, Pineapple's Renet, Pepin Ribston, Bojki, Yellow Belfler, Eastern Rozmarin, Winter Gold Parmen, Londons Pepin, Solivarske Beregivske.

In autumn for the saving old local sorts and propagating the stocks for the pear, plum and cherry plum the quince stocks BA-29 were planted. The search tours and selection of the local sorts of fruit cultures will be prolonged in 2010 year.