



ARCTIC SEA BUCKTHORN IN LATVIA AND OTHER TEMPERATE CLIMATE ZONES

NATALIA DEMIDOVA, SEVNILH, ARKHANGELSK, RUSSIA, NATALIA.DEMIDOVA@BK.RU

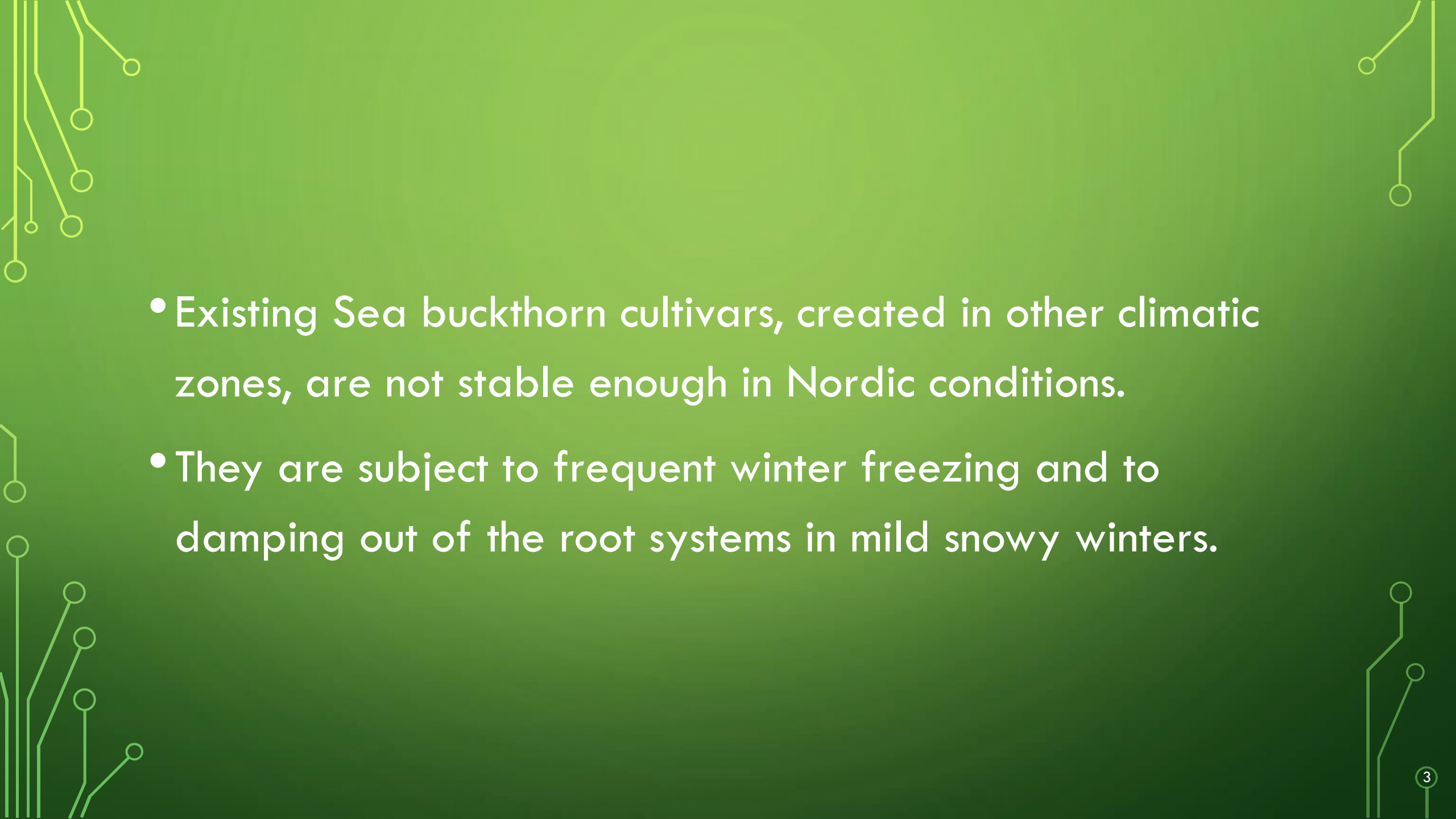
ANDREJS BRŪVELIS, RIGA, LATVIA, ANDREJSBRUVELIS@GMAIL.COM

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“Breeding of sea buckthorn for specific climate conditions”

SEA BUCKTHORN INTRODUCTION

- Sea buckthorn (*Hippophae rhamnoides* L.) was introduced to the European North of Russia at the end of 60-th last century.
- It is sufficiently resistant in the Arctic conditions , fully adapted, regularly bear fruits of normal size and quality.

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- The slide features a dark green background with a gradient. In the corners, there are decorative elements resembling circuit board traces or stylized plant roots, with small circles at the end of the lines. These elements are in a lighter shade of green than the background.
- Existing Sea buckthorn cultivars, created in other climatic zones, are not stable enough in Nordic conditions.
 - They are subject to frequent winter freezing and to damping out of the root systems in mild snowy winters.

SEA BUCKTHORN SELECTION IN THE RUSSIAN NORTH

- Successful introduction of Sea buckthorn to the North is not possible without its selective improvement aimed at obtaining local highly winter-resistant cultivars.
- Fenno-Scandinavian Sea-buckthorn population is the most resistant in the North.

- The plants are characterized by high winter hardiness, resistance to root system's damping out, big berry size and the content of biologically active substances.
- Diseases and pests were not detected for the entire period of the test in the Nordic conditions.
- The weight of 100 fruits varies from $71,5 \pm 1,8$ g till $112,9 \pm 4,0$ g depending on weather conditions of vegetative period.

HYBRIDS BIOCHEMICAL CHARACTERISTICS

- The plants produce 5,5-7,0 kg fruits per bush.
- The vitamin C content – 103,5 mg/100g, in terms on absolute dry weight: 445,5-1094,5 mg/100g.
- B-carotene: 0,92-1,42 mg/100g, in terms on absolute dry weight: 8,23-17,1 mg/100g;
- Sugar – 0,57-1,42%, in terms on absolute dry weight: 5,04-12,2 %.

COLLABORATION

- Started at the end of 90th last century.
- Several best selected forms were transferred to Latvia for the test for its sustainability as for climate conditions, as for fruit quality.
- All of those forms are hybrids between selected plants originated from Khakassia (Russia, mother plant) and Finland (father plant).

ARCTIC SEA BUCKTHORN INTRODUCTION

- Selected SBT Arctic forms have been growing and producing fruit in Latvia for more than 20 years.
- They have also been successfully introduced in Finland, Canada and Ukraine, where they are winter-hardy and disease-resistant.

VARIETY 'EVA'

- One of the selected Arctic form got a name 'Eva'
- It is a popular variety in amateur gardens, especially in Finland, due to the large size and sparse arrangement of the fruit, which makes it easier to pick it with fingers.

FEATURES OF VARIETIES

	Eva	Tatjana	Mary	Bot.Ljub.	37-89-321	82-90-434
Place of	Riga, Latvia				Arkhangelsk, Russia	
Number of inflorescences on 10 cm of shoot	7	12	15	10	-	-
Number of fruits in one inflorescence	2,6	4,9	5,2	5,3	-	-
Number of fruits on 10 cm of shoot	18	60	78	51	54	46
Proportion of wood weight in fruit clusters, % (fresh)	30	8	9	10	17	12
Weight of 100 fruits, g (fully ripe)	115	88	82	97	96	104

Eva

Tatjana

Mary

Bot.Ljub.





VARIETY '82-90-434'



VARIETY '37-89-321'

