https://doi.org/10.17221/53/2021-PPS

Biographical Notice

Professor Aleš Lebeda at Seventy

Editor-in-Chief of Plant Protection Science

Time is an absolute measure of our lives. It seems not a very long time since we commemorated the sixtieth birthday of Professor Aleš Lebeda, our Editor-in-Chief, within the pages of this journal (Kůdela et al. 2011). That biographical notice summarized all his basic life data, activities and achievements, including memories shared by some of his foreign colleagues. However, as usual, prof. A. Lebeda did not slow down during the last decade (2011–2021), but remained very active past his 60th year, accomplishing many new and valuable achievements. The purpose of this new biographical notice is to summarize, in a comprehensive way, his most important contributions to our professional and scientific community.

Professional and scientific career. In the period 1975–1994, prof. A. Lebeda was employed as a plant pathologist and plant breeder at the Plant Breeding Station in Smržice (later SEMO Ltd. Smržice) working with vegetable crops. Starting on 1st June 1994, the life of prof. A. Lebeda became connected with Palacký University in Olomouc (PU), when he joined the Faculty of Science and Department of Botany (DB). From 1995 up to 2010, he served as the head of the DB, and until recently led its Division of Plant Pathology and Microbiology, which he founded in 1996. This is the first plant pathology laboratory/division among classical Czech universities. During the last 25 years, that division has conducted wide-ranging research activities focused mostly on downy (*Bremia, Peronospora, Plasmopara, Pseudoperonospora*) and powdery mildews (*Erysiphe, Golovinomyces, Oidium, Podosphaera, Sphaerotheca*), and parasitic oomycetes and fungi of different plant genera (e.g., Cucurbitaceae, *Lactuca*, *Solanum*, and *Helianthus*, but including a broad spectrum of other wild and crop host plants). This research has been aimed toward various aspects of host-pathogen interactions in crop and wild-plant pathosystems (e.g., taxonomy and host range, virulence variation and microevolution, population genetics and dynamics, epidemiology, plant germplasm as resistance sources, mechanisms of resistance, biochemical and molecular biology of resistance, fungicide resistance, and plant protection management). The division also developed large collection of these pathogens and other microorganisms (viruses and phytoplasmas, cyanobacteria and algae) important in agriculture, which now form part of the Czech National Programme of Germplasm Conservation. Similar activities were focused on the development of working collections of plant germplasm (e.g., cucurbits, *Lactuca*, and *Solanum*), with strong attention placed on the study and exploitation of plant genetic resources in varietal improvement, cooperating with leading breeding companies.

Teaching and supervising activities. His teaching activities at PU in Olomouc covered a broad spectrum of subjects, e.g., Systematics and Evolution of Lower Plants (Fungi), General Mycology, General and Special Phytopathology, Pesticide Science, and Plant Breeding. Recently, he has mostly been involved in lecturing certain parts of the General and Special Phytopathology course and giving special seminars in Botany (focused on various aspects of plant-pathogen interactions). He contributed to the development and accreditation (2019) of a new Master of Science program in Phytopathology at PU in Olomouc.

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He was active in supervising students, in cooperation with some universities, during his time at the Plant Breeding Station in Smržice; however, that activity greatly increased when he joined UP in Olomouc. Altogether, he has supervised 47 BSc. and MSc. thesis students and 21 Ph.D. students who successfully completed their doctoral studies.

International experience and lecturing abroad. Especially since the 1990s and the major changes that this decade brought to the political system of the Czech Republic, he travelled very frequently abroad for short visits (conferences, seminars, lectures, etc.), but also for medium- and long-term research stays, lectures and expeditions. In total, he has taken ca. 60 trips to various countries, including. Algeria, Argentina, Australia, the Balkan countries, Canada, Chile, China, Costa Rica, France, Georgia, Germany, India, Israel, Italy, Japan, Korea, Mauritius, Netherlands, New Zealand, Peru, Portugal, South Africa, Slovakia, Slovenia, Spain, Sweden, Taiwan, Thailand, Turkey, U.K., Uruguay and USA. He has a similarly long record of invited and other lectures abroad, in total, 223 lectures in 40 countries on five continents.

Membership in scientific societies and on boards, commissions, and editorial boards of journals. During his career, he has been a member of 49 international or domestic scientific societies, scientific boards, commissions, and editorial boards of journals. As examples, we can mention the following: International Society for Horticultural Science (2001–2017); Eucarpia (1997–2017); Grant Agency of the Czech Republic, Board for Agriculture (1993–1998); Accreditation Commission of the Czech Government – group for Biology and Ecology (1998–2012); National Commissions awarding D.Sc. in Agricultural and Forestry Phytopathology; Microbiology, Virology and Mycology; and Experimental Plant Biology (Czech Academy of Sciences); and Botany and Plant Physiology (Slovak Academy of Sciences) (till recently); Scientific Board of PU (2000–2013); Scientific Board of the PU Faculty of Science (1996–to date); Editor-in-Chief of Plant Protection Science (2006–to date); President (2007–2012) and vice-President (1996–2007, 2012–2020) of the Czech Society for Plant Pathology; and the Ethics Committee of PU in Olomouc (2014–to date).

Research grants and projects. During his professional life, he has participated in 37 domestic (e.g., GAČR, NAZV, MŠMT, FRVŠ, MH, and OPVK) and international (e.g., EU, OECD, Tempus, Socrates/Erasmus, DFG, IAG, and HRI) funded projects as a leader or collaborator. Probably the most important one has been "Variability of components and interactions in plant pathosystems and the impact of environmental factors on their expression", which he supervised in the years 2005–2011. This project substantially contributed to the development of plant pathology as an academic discipline at PU in Olomouc.

Organizer of conferences, seminars, workshops, and meetings. Altogether, he has organized or co-organized over 20 international and national scientific and professional meetings. Some of the most important include "Genetic Resources of Horticultural Crops", May 22–23, 1995, PU in Olomouc; "EUCARPIA Meeting on Leafy Vegetables Genetics and Breeding", June 8–11, 1999, PU in Olomouc; "Disease Resistance in Plant Pathology", 6th Conference of European Foundation for Plant Pathology, September 8–14, 2002, Prague, Czech Republic; "The 8th EUCARPIA Meeting on Cucurbit Genetics and Breeding", July 12–17, 2004, PU in Olomouc; "First Meeting of the ECP/GR Working Group on Leafy Vegetables", October 13–14, 2005, PU in Olomouc; "The 2nd International Downy Mildews Symposium", July 2–6, 2007, PU in Olomouc; "Overseas Field Meeting of British Mycological Society in Moravia", October 5–13, 2008, Olomouc, Czech Republic; "Climate Change and Plant Pathogens, Pests and Weeds", September 4, 2009, Mendel University in Brno, Czech Republic; "Biotech-Crops and Their Exploitation in Plant Protection", September 6, 2012, Agricultural University, Nitra, Slovak Republic; "Wild Plant Pathosystems", 1st International Conference, July 2–5, 2013, PU in Olomouc; "Powdery Mildews – A New Achievements in Taxonomy, Biology, Host-Pathogen Interactions, Epidemiology and Plant Protection", September 6, 2018, Mendel University in Brno, Czech Republic;

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"EUCARPIA Leafy Vegetables 2019, 9th International Conference on Genetics and Breeding of Leafy Vegetables", June 24–28, 2019, PU in Olomouc; and "Plant Resistance Against Diseases and Pests as Valuable Part of Integrated Plant Control", September 16, 2020, Mendel University in Brno.

Publications and their impact. To date (March 2021), the total record of his scientific and professional publications exceeds 1 145 items. Among them, 305 peer-reviewed scientific papers were published in 73 different international journals (mostly tracked by the Web of Science, h-index = 32) and 25 papers in eight domestic (Czechoslovak/Czech) scientific journals. Prof. Lebeda has also authored or edited 44 books, monographs, and proceedings. The total number of citations to his publications currently exceeds 3 000, including references to 368 of his papers as cited in 540 international scientific journals, as well as in other publications (proceedings, books, Ph.D. dissertations, etc.).

Honours and awards. It is well worth noting that he has received more than 20 national and international awards. On the national level, Studio Febio produced a TV documentary "GENUS – Life of plant pathologist Aleš Lebeda", presented by Czech TV – channel 1 on August 14th, 1995. In 2001, he was awarded the Gold Medal of PU in Olomouc for his contribution to university development; in 2003, the Medal of the Ist Degree by the Ministry of Education, Youth and Sport for his contributions to development of plant pathology; and in 2021, the Gold Medal of the Czech Academy of Agricultural Sciences for extraordinary contributions to agricultural research. From his list of international awards, we can report: the Rudolf Hermanns Foundation Award in Viticultural and Horticultural Sciences (Geiseinheim, Germany, 1996) and the Visiting Fellow Award for long-term collaborative research in plant pathology and plant genetics (Horticulture Research International, Wellesbourne, UK, 2000).

Editorial activities at Plant Protection Science (PPS). In 1990, he became a member of the Editorial Board (EB) of Plant Protection Science (between 1990–1996 known as Ochrana Rostlin/Plant Protection). As a member of EB PPS, he contributed major changes in its publication strategy and the structure of its editorial board, enhancing its international reputation and scientific credibility. At the end of 2006, he was named Editor-in-Chief of PPS, a position previously held by prof. V. Kůdela. Under prof. Lebeda's supervision, PPS steadily grew, step-by-step becoming the well known and respected scientific journal that it is today. In 2012, the PPS was first included in the Core Collection of Web of Science, receiving its first Impact Factor (IF = 0.597) in 2014. Since that time, the journal's quality and impact have grown, reaching an IF of 1.130 in 2019, with a 5-year IF of 1.361.

Life message of Aleš Lebeda. A. Lebeda is highly valued person in the academic sphere and, of course, at Palacký University. His colleagues and collaborators from Department of Botany appreciate him not only for his hard-working and scientific results, but also for his humanity, enthusiasm, fair play, friendship and empathy. He is able to motivate people for hard work in science and he is also stimulating person for students.

We wish him long and happy life.

Thank you.

Vladan Ondřej
Head, Department of Botany, Faculty of Science, Palacký University in Olomouc

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Memories of Aleš Lebeda colleagues (leading plant pathologists and plant breeders) on personal contacts, cooperation, perspectives and life impressions

As he reaches the landmark of his 70th birthday, it is with pleasure that I pay tribute to Professor Aleš Lebeda (Editor-in-Chief, Plant Protection Science). Aleš once told me that his birthdays are the only occasions on which he sings! I hope therefore that the rendition on his forthcoming 70th birthday (13 April 2021) will be recorded for posterity!

Aleš and I have known one another for 45 years. By chance, during the second half of 1970s, we were both conducting research on genetic resistance of lettuce to the downy mildew pathogen (*Bremia lactucae* Regel). This included variation for specific virulence in populations of this oomycete pathogen (commonly referred to in those days as "physiological races"). Aleš was employed at what was then the Plant Breeding Station at Smržice. I was newly employed in the Plant Pathology Department of the National Vegetable Research Station (NVRS) at Wellesbourne in Warwickshire, UK (later Horticultural Research International (HRI), now part of the Department of Biological Sciences, Warwick University). My Ph.D. thesis, presented in 1973, was a study of the host-pathogen interaction between *B. lactucae* and species of Compositae, particularly *Lactuca sativa* (cultivated lettuce).

At the end of 1976, I received a letter from Aleš who had read my papers in Annals of Applied Biology that reported work conducted during my Ph.D. studies and on-going research at NVRS. Thereafter, Aleš and I began to correspond regularly by "snail mail" (we would have to wait another ca 20 years for e-mail!). Over these early years, while we shared our data and ideas about our ongoing research work, I was reluctant to ask Aleš if I was corresponding with a man or a woman. To find out, I had to wait until our first face-to-face meeting in March 1980! In England, both men and women can be called Alex. This first meeting was at a Eucarpia meeting on leafy vegetables held in Littlehampton, UK at the former Glasshouse Crops Research Institute (GCRI). It was also in 1980 that our first co-authored paper was published in Zeitschrift für Pflanzenzüchtung (Journal of Plant Breeding). This paper elucidated the *B. lactucae* resistance factors present in Czech lettuce cultivars and variation for specific virulence identified among pathogen isolates from Czechoslovakia. My own work on *B. lactucae* ceased after about another 10 years in 1990 but, over four decades, Aleš has gone on to publish sixty or more papers on the related subjects of *Lactuca* germplasm, wild pathosystems and resistance to *B. lactucae.* I take much pleasure in my co-authorship of five papers among his collection of published work.

It was at the 1980 meeting referred to above that I first learnt how difficult it was, during the Communist period, for Aleš (and so many others) to establish and maintain regular dialogue and interactions with scientists from non-Communist countries. At this time, his Institute Director was not just unsupportive but actually hostile and suspicious of Aleš's motives in maintaining professional contacts with me and other scientists outside the "Eastern Block". Aleš's first visit to the UK was enormously difficult for him to arrange and to finance. However, Aleš understood well from the experiences of his father (a well-known veterinary scientist) just how important such contacts are for scientific progress and professional development. It took real courage, commitment and self-sacrifice for Aleš to achieve all he did in the decade preceding the changes that occurred during 1990.

Towards the end of 1987 (by which time I had moved from NVRS) Aleš organised my a highly informative and extremely enjoyable professional visit to Czechoslovakia as a guest of the Ministry of Agriculture. Aleš and his family provided generous hospitality and I enjoyed many excellent scientific discussions on visits to diverse research establishments during my week-long visit. I spoke at a large meeting of Czech plant breeders at Olomouc and also to a meeting of institute staff at Smržice. After the latter talk, I recall having difficulty finding an appropriately tactful answer to the question: "What did I think about Czech food and, in particular, that served in the staff canteen at Smržice?" As a consequence of a very brief visit to Prague on this trip I was keen to return. In 1990 I did so; this time for a vacation with my wife. Aleš was, as always, helpful and generous in locating excellent and affordable accommodation for our stay. Over the years, Aleš and I have met up from time to time at international scientific meetings. I particularly recall the excellent "2nd International Symposium on Downy Mildews" that Aleš organised in July 2007 at Palacký University in Olomouc.

Over more than four decades, Professor Aleš Lebeda has been at the forefront of applied research on the biology and control of diseases of important, high-value, European crops, including cucurbits, tomato,

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sunflower, legumes and lettuce. His programmes of research have particularly embraced studies of obligate pathogens causing powdery and downy mildew diseases of significant economic importance. The deployment of resistance to disease in programmes of crop genetic improvement has been a particular interest throughout Aleš's long and productive career. His investigations of wild relatives of cultivated species, as sources of potentially valuable germplasm for crop breeding, have been particularly noteworthy. Aleš has been valued as a friend and professional colleague by many international scientific collaborators over the years. This includes several of my former colleagues at Horticulture Research International where Aleš spent a three periods (1993, 1995, and 1998) of study-leave (now Warwick Crop Centre within the Department of Biological Sciences, Warwick University). Aleš has also been a conscientious mentor of young scientists. His impressive publication record (cca 300 refereed papers) including, of course, those in Plant Protection Science is testament to the assiduous way in which he has ensured that the results of research, he has directed or participated in, have always been made available to others in a timely manner.

Professor Ian R. Crute, Ph.D., CBE.
Formerly: Chief Scientist, UK Agriculture and Horticulture Development Board, and Director, Rothamsted Research, Harpenden, U.K.
British Society for Plant Pathology (BSPP) Past President (1995)

We met first in 1980 when Aleš joined a conference at the Glasshouse Crops Research Institute (GCRI), Littlehampton, England. Our common professional interest in the microbes causing downy mildew diseases of vegetable crops formed the common bridge between us which has blossomed over the years into personal friendship and professional admiration. It was obvious, even in 1980 that Aleš was (and remains) a free – thinking, imaginative and intellectually stimulating young scientist. That was not an easy persona for someone living in the then Soviet – dominated Czechoslovakia. Somehow or other, he managed to acquire, like many others I met in that period, survival skills. Subsequently, we met at Horticulture and Plant Pathology Conferences, and Aleš started carving an internationally respected career for his researches into virulence distribution and variation in downy mildew microbes and compatibilities with host resistances. As discoveries in molecular biology began revealing why and how host and pathogen relationships are established and change, Aleš' work gained increasing international credence, establishing him as a major figure in epidemiological research.

In 1990 after the Berlin Wall fell and Soviet power collapsed my wife and I visited Prague and Aleš' home town of Brno. He gave us an incredible and detailed view of his and his family's life under communist rule. That brought into sharp focus his capabilities and strengths of his worth as an international scientist and of his personality.

Under the auspices of the European Foundation for Plant Pathology (EFPP) Ales convened during September 2002, an international conference in Prague "Disease Resistance in Plant Pathology" which attracted eminent speakers from around the world. It was also the launch pad for transforming the previously Czech language Plant Protection (Ochrana rostlin) journal into the English language international publication, Plant Protection Science. This meeting vividly demonstrated Aleš' organisational and management abilities because Prague City Centre had been inundated by floods severely curtailing transport. That meeting brought Czech plant pathology centre stage in European studies, a considerable reward for scientists like Aleš who had worked for years with shortages of equipment and only limited access to international literature.

Over the last two decades Plant Protection Science has thrived as an increasingly authoritative journal with rising evaluation metrics, not least its impact factor which is now gaining comparability with Western publications. This is due in no short measure to Aleš' industrious devotion to its success. It is an honour and pleasure as a member of the Board of Editors and now a contributory author to witness and applaud this success. Doubtless, Aleš' father, an eminent veterinary professor and scientist who was diminished grievously by communist lackies, would draw great satisfaction from his son's successes.

Professor Geoffrey R. Dixon, Ph.D.
Visiting Professor, School of Agriculture, Policy and Development, University of Reading, Berkshire, United Kingdom; and owner GreenGene International and Research Fellow

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One of the joys of being a scientist is the opportunities it presents to travel, to attend meetings, to meet colleagues previously only known as the author of interesting papers, and with time and luck, to convert some such meetings into lasting collaborations and friendships. In such a way, I have been greatly blessed having come to know many scientific colleagues around the world and convert some repeated encounters into deep and lasting friendships. In this regard, I feel privileged to be able to count my relationship with Aleš Lebeda as one of those meetings of like minds that has developed into a close friendship, albeit one separated by 16 000 kilometres.

We first met in person nearly 20 years ago in September 2002 when I attended the 6th EFPP meeting on the outskirts of Praha. One of the sessions, organized by Aleš, focused on the epidemiology and genetics of plant-pathogen interactions in wild and weedy ecosystems. This was my passion at the time, and still is, and Aleš and I rapidly established a great friendship. Since then, we have done much together. Aleš' extensive data on the resistance of wild lettuce and the pathogenicity of its mildew pathogen, and his ready willingness to provide additional insights to that interaction have seen me turn time and again to using his work to illustrate points I wanted to make in my various writings.

Despite the distance involved, Aleš' global view has meant that we have met twice in Australia. The first time was in September 2005 when he visited Canberra and our friendship really developed. It was wonderful to be able to show him some of the Australian bush. Subsequently, we met again – this time in Melbourne – at the XVIII International Botanical Congress. There we discussed and agreed to jointly organise a conference on Wild Plant Pathosystems to be held in Olomouc in 2013. When I say, jointly, of course, it was Aleš who did all of the work!

Regretfully, my move into a major science management role between 2004 and 2012 prevented the opportunity to spend a sabbatical period in Olomouc. However, I certainly got a flavour of what I had missed when July 2013 came around, and I went there for the First Wild Plant-Pathosystems conference. Aleš' vision and drive in proposing and organizing that first meeting was reflected in its success and the ongoing 'life' the meeting now has. Subsequent meetings in Helsinki (2016) and near Frankfurt (2019), and a proposed meeting in the USA (2022 – Covid-19 willing) have continued the same tradition of informality and discussion.

My wife and I also have to thank Aleš for introducing us to Praha. Jill accompanied me on my first visit in 2002 when, in addition to attending the conference, we took a day or two to visit some of Praha's attractions. We were so smitten that this visit generated an internal Burdon family rule that neither I nor Jill can visit Praha without the other being present. For us, an additional highlight to the 2013 meeting was Aleš' generosity in taking the weekend following the conference to introduce us to the eastern Moravian countryside "Valachia" – a truly beautiful area.

Aleš and I have often talked about the possibility of collaborating on a project. To date, the ongoing activities of two careers going on 16 000 kilometres apart have conspired against us. However, I hope that we will find the time to rectify this situation and look to new insights coming from a merging of thoughts about the many wild, weedy and agricultural systems that we have both worked on over the last few decades.

Dr. Jeremy J. Burdon, Ph.D.
Honorary Research Fellow, CSIRO Agriculture & Food, Canberra, Australia

I met Aleš Lebeda several decades ago through our mutual interest in cucurbit diseases and our joint participation in numerous scientific conferences around the world. We became collegial friends at first, but very soon also became good personal friends. My wife, Carol, first met Aleš in 2005 at the 3rd International ISHS Cucurbitaceae Symposium in Townsville, Australia. They instantly became good friends after discovering they both had a fondness for 'wadka' (vodka). Over the years we enjoyed many good times with Aleš.

At the IXth EUCARPIA Conference on the Genetics and Breeding of Cucurbitaceae in Avignon, France in 2008, we enjoyed a most memorable evening with Aleš and others on a dinner cruise down the Rhone River. As I remember, Aleš and Carol danced the night away and we were the last to leave the boat after returning to the dock with numerous empty wine bottles on our table.

Also in 2008, The American Phytopathological Society (APS) held its Centennial meeting in St. Paul, MN (USA). I was president of APS then and invited the leaders of plant pathology and plant protection societies

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from around the world to join us as we celebrated 100 years of our society. I was pleased and honored that Aleš was there representing the Czech Society for Plant Pathology.

Perhaps the most memorable time we spent with Aleš was during the 2009 XVIIIth Czech and Slovak Conference of Plant Protection in Brno. Aleš had invited me to give one of the plenary lectures. After the conference, Carol and I spent two wonderful days with Aleš, as we travelled from castle to castle and wine cellar to wine cellar in South Moravia. We thoroughly enjoyed our time with Aleš and the history we witnessed, and, of course, the excellent wines we tasted along the way.

In 2010, I invited Aleš to Purdue University in West Lafayette, Indiana for a seminar. While we do not have any 500-yr-old castles in Indiana we did do several nature walks and a campus tour. We were honored to have Aleš stay in our home as we enjoyed wonderful dinners and good wine and friendship.

A hallmark of our times with Aleš was his "kisses on Carol's cheek" each time they met. They started out as the traditional "two pecks" but over time, quickly morphed into 3, 4, 5, or 6; for which Carol was always grateful.

There were many other good times spent with Aleš. He is a good friend and scientist, and Carol and I congratulate him on his 70th birthday and as the longtime editor-in-chief of the journal Plant Protection Science. We wish him continued success and good health and hope to see him again soon somewhere in the world. Carol misses her "kisses".

Professor Ray D. Martyn, Ph.D.
Professor of Plant Pathology (Emeritus), Purdue University, West Lafayette, Indiana, USA
American Phytopathological Society (APS) Past President (2008)

It has been my privilege to count Prof. Dr. Aleš Lebeda as my colleague and, more importantly, my friend for more than sixteen years. Professionally, his numerous contributions in lettuce and cucurbit genetics, breeding, taxonomy, and pathology have been incredibly valuable to my career, as I have utilized his knowledge in my breeding programs on a regular basis. Whether the information came from published papers and books, presented lectures and posters, conferences he has organized, or personal communication, he has had a significant impact on my career as well as on the entire field of horticulture. Personally, I have had the pleasure to spend time socializing with him in many countries (Czech Republic, USA, England, Australia, Spain, Turkey, Hungary, Belgium, Canada, France, and the Netherlands immediately come to mind) discussing life, science, and a host of other topics, often late into the evening. All have been memorable, but two especially memorable adventures included extended visits to the Moravian and Californian wine countries. I look forward to our continued collaboration, our continued friendship, and our next adventure. Congratulations on your 70th Birthday, Aleš, and may you have many more.

Larry D. Knerr, Ph.D.
Director of Plant Breeding, Duda Farm Fresh Foods, Florida and California, USA

Rijk Zwaan is a leading vegetable breeding company with worldwide R&D and sales activities. We breed new vegetable varieties adapted to local climate conditions, that are resistant to pests and diseases and attractive to the consumer. In breeding, we use the rich diversity nature offers us and combine it with state-of-the-art breeding technologies and our extensive market knowledge. Our contacts with Aleš Lebeda began long ago, when Aleš spent a sabbatical with Dr. Reinink in 1988, in the Institute for Horticultural Plant Breeding (IVT) in Wageningen. During this sabbatical Aleš studied the lettuce-downy mildew pathosystem. When Dr. Reinink later moved to industry, first as manager of the lettuce-breeding department of Rijk Zwaan, and later as managing director of this company, co-operation was renewed on the topic of genetic resources of *Lactuca* species. Breeders always are very interested in new genetic resources and Rijk Zwaan actively invests in collecting, preserving and using genetic resources. During the crop domestication process, only a part of the genetic diversity present in the gene pool of the wild species is included in the cultivated crop. When looking for crop traits that add value to new varieties, nowadays breeders often turn to this reservoir

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of 'left behind' genes in the primary and secondary gene pools of their crop. Often they search for disease resistance genes (for instance to downy mildew in lettuce), but more and more wild species are also used as donors of other interesting traits, such as abiotic stress tolerance. New molecular genetic tools make it easier for breeders to follow the introgression of genes from the wild species into their crop and to unlink unwanted genes ('linkage drag') from the genes of interest. With the help of Prof. Aleš Lebeda, Rijk Zwaan built up a valuable collection of wild *Lactuca* species. Dr. Aleš Lebeda and Dr. Eva Křístková collected wild lettuce in many countries around the world, and Aleš also participated in a joint collection trips with Rijk Zwaan in Germany, Spain and Georgia. In recent years, Aleš and Eva came twice a year to the Netherlands for working visits to the lettuce greenhouse, where the collection was propagated. They spent many hours under hot greenhouse conditions to describe the enormous morphological variation of the *Lactuca* species. Later they combined the morphological data with ecological information from the sites where these accessions were collected and with the results of additional resistance screens. This work resulted in an extensive dataset on the evolutionary aspects of *Lactuca* host-pathogen pathosystems, notably downy and powdery mildew. Many publications of Prof. A. Lebeda with co-workers are partly based on results collected in this gene bank greenhouse of Rijk Zwaan, and we are happy that our cooperation is so fruitful. For the breeders of Rijk Zwaan, this well-described collection is a precious treasure trove that certainly will lead to the discovery of many new interesting traits for lettuce breeding – a long-lasting co-operation and friendship that bears both scientific and practical breeding fruits.

Dr. Ir. Kees Reinink,
Managing Director Rijk Zwaan Zaadteelt & Zaadhandel, De Lier, The Netherlands