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Education

Degree	Major	Year	Institution
B.S.	Plant Pathology	1977	Iowa State University
M.S.	Plant Pathology	1983	University of Wisconsin
Ph.D.	Plant Breeding-Plant Genetics and Plant Pathology	1984	University of Wisconsin

Refereed Publications

1. Havey, M.J., and K.J. Frey. 1978. Optimal sample sizes and number per plot and replicate number for seed weights in oats. Cereal Res. Comm. 6:113-122.
2. Havey, M.J., and C.R. Grau. 1985. Decline of established alfalfa in soils naturally infested with *Phytophthora megasperma* f. sp. *medicaginis* and level of correlation with a seedling assay. Plant Dis. 69:221-224.
3. Havey, M.J., and D.P. Maxwell. 1987. Inheritance of Phytophthora root rot resistance in two diploid alfalfa species. Crop Sci. 27:225-228.
4. Havey, M.J., D.P. Maxwell, and J.A.G. Irwin. 1987. Independent inheritance of genes conditioning resistance to Phytophthora root rot from diploid and tetraploid alfalfa. Crop Sci. 27:873-879.
5. Havey, M.J., and D.P. Maxwell. 1988. Transfer of disease resistance from diploid to tetraploid alfalfa using unreduced female gametes. Plant Disease 72:603-604.
6. Havey, M.J., J.C. Faria, D.P. Maxwell, and D.J. Hagedorn. 1988. Partial resistance to anthracnose in Brazilian land races of dry beans shows race specificity. Euphytica 39:167-174.
7. Havey, M.J., and F.J. Muehlbauer. 1989. Linkages between restriction fragment length, isozyme and morphological markers in lentil. Theor. Appl. Genet. 77:395-401.
8. Havey, M.J., and F.J. Muehlbauer. 1989. Variability for restriction fragment length polymorphisms and phylogenies in lentil. Theor. Appl. Genet. 77:839-843.
9. Havey, M.J. 1991. Phylogenetic relationships among cultivated *Allium* species from restriction enzyme analysis of the chloroplast genome. Theor. Appl. Genet. 81:752-757.
10. Havey, M.J. 1991. Molecular characterization of the interspecific origin of viviparous onion. J. Hered. 82:501-503.
11. Havey, M.J. 1992. Restriction enzyme analysis of the nuclear 45s ribosomal DNA of six cultivated Alliums. Plant Syst. Evol. 181:45-55.
12. Havey, M.J. 1992. Restriction enzyme analysis of the chloroplast and nuclear 45s ribosomal DNA of *Allium* sections *Cepa* and *Phyllodolon*. Plant Syst. Evol. 183:17-31.
13. Havey, M.J. 1993. A putative donor of S-cytoplasm and its distribution among open-pollinated populations of onion. Theor. Appl. Genet. 86:128-134.
14. Smith, K.P., M.J. Havey, and J. Handelsman. 1993. Protection by *Bacillus cereus* of harvested cucumber fruit from cottony leak. Plant Dis. 77:139-142.
16. Havey, M.J., and O.H. Bark. 1994. Molecular confirmation that sterile cytoplasm has been introduced into open-pollinated Grano onion cultivars. J. Amer. Soc. Hort. Sci. 119:90-93.

17. Bark, O.H., J.N. Corgan, and M.J. Havey. 1994. RFLP analysis of progeny from an interspecific hybrid between *Allium fistulosum* and *Allium cepa*. J. Amer. Soc. Hort. Sci. 119:1046-1049.

18. Kennard, W.K., K. Poetter, A. Dijkhuizen, V. Meglic, J.E. Staub, and M.J. Havey. 1994. Linkages among RFLP, RAPD, isozyme, disease resistance, and morphological markers in narrow and wide crosses of cucumber. Theor. Appl. Genet. 89:42-48.

19. Havey, M.J. 1995. Identification of cytoplasms using the polymerase chain reaction to aid in the extraction of maintainer lines from open-pollinated populations of onion. Theor. Appl. Genet. 90:263-268.

20. Bark, O.H., and M.J. Havey. 1995. Similarities and relationships among open-pollinated populations of the bulb onion as estimated by nuclear RFLPs. Theor. Appl. Genet. 90:607-614.

21. Kennard, W.K., and M.J. Havey. 1995. Quantitative trait analysis of fruit quality in cucumber: QTL detection, confirmation, and comparison with mating-design variation. Theor. Appl. Genet. 91:53-61.

22. Bradeen, J.M., and M.J. Havey. 1995. Randomly amplified polymorphic DNA in bulb onion and its use to assess inbred integrity. J. Amer. Soc. Hort. Sci. 120:752-758.

23. Bradeen, J.M., and M.J. Havey. 1995. Restriction fragment length polymorphisms reveal considerable nuclear divergence within a well defined maternal clade in *Allium* section *Cepa* (Alliaceae). Amer. J. Bot. 82:1455-1462.

24. Havey, M.J., and W.T. Randle. 1996. Combining abilities for yield and bulb quality among long- and intermediate-day open-pollinated onion populations. J. Amer. Soc. Hort. Sci. 121:604-608.

25. Dijkhuizen, A., W.C. Kennard, M.J. Havey, and J.E. Staub. 1996. RFLP variability and genetic relationships in cultivated cucumber. Euphytica 90:79-87.

26. Havey, M.J. 1997. Predominant paternal transmission of the mitochondrial genome in cucumber. J. Hered. 88:232-235.

27. Havey, M.J. 1997. On the origin and distribution of normal cytoplasm of onion. Gen. Res. Crop Evol. 44:307-313.

28. King, J.J., J.M. Bradeen, O. Bark, J.A. McCallum, and M.J. Havey. 1998. A low-density genetic map of onion reveals a role for tandem duplication in the evolution of an extremely large diploid genome. Theor. Appl. Genet. 96:52-62.

29. Havey, M.J., J. McCreight, B. Rhodes, and G. Taurick. 1998. Differential transmission of the cucurbit organellar genomes. Theor. Appl. Genet. 97:122-128.

30. King, J.J., J.M. Bradeen, and M.J. Havey. 1998. Variability for RFLPs and relationships among elite commercial inbred and virtual hybrid populations of onion. J. Amer. Soc. Hort. Sci. 123:1034-1037.

31. Havey, M.J., and D. Leite. 1999. Toward the identification of cytoplasmic male sterility in leek: Evaluation of oganellar DNA diversity among cultivated accessions of *Allium ampeloprasum*. J. Amer. Soc. Hort. Sci. 124:163-165.

32. Havey, M.J. 1999. Seed yield, floral morphology, and lack of male-fertility restoration of male-sterile onion (*Allium cepa*) populations possessing the cytoplasm of *Allium galanthum*. J. Amer. Soc. Hort. Sci. 124:626-629.

33. Havey, M.J. 2000. Diversity among male-sterility-inducing and male-fertile cytoplasms of onion. Theor. Appl. Genet. 101:778-782.

34. Park, Y.H., S. Sensoy, C. Wye, R. Antonise, J. Peleman, and M.J. Havey. 2000. A genetic map of cucumber composed of RAPDs, RFLPs, AFLP markers and loci conditioning resistance to papaya ringspot and zucchini yellow mosaic viruses. Genome 43:1003-1010.

35. Lilly, J.W., and M.J. Havey. 2001. Sequence analysis of a chloroplast intergenic spacer for phylogenetic estimates and a PCR-based polymorphism detecting mixtures of male-fertile and male-sterile cytoplasmic onion. Theor. Appl. Genet. 102:78-82.

36. Lilly, J.W., M.J. Havey, S. Jackson, and J. Jiang. 2001. Cytogenomic analyses reveal structural plasticity in the chloroplast genome of higher plants. Plant Cell 13:245-254.

37. Galmarini, C.R., I.L. Goldman, and M.J. Havey. 2001. Genetic analyses of correlated solids, flavor, and health-enhancing traits in onion (*Allium cepa* L.). Mol. Gen. Genomics 265:543-551.

38. Kuhl, J.C., R.E. Hanneman, Jr., and M.J. Havey. 2001. Characterization and mapping of *Rpi1*, a late blight resistance locus from diploid (1EBN) Mexican *Solanum pinnatisectum*. Mol. Genet. Genomics 265:977-985.

39. Villanueva-Mosqueda, E., and M.J. Havey. 2001. Genetic analyses of seed yield in onion. J. Amer. Soc. Hort. Sci. 126:575-578.

40. Lilly, J.W., and M.J. Havey. 2001. Short repetitive motifs contributed significantly to the huge mitochondrial genome of cucumber. Genetics 159:317-328.

41. Lilly, J.W., G. Bartoszewski, S. Malepszy, and M.J. Havey. 2001. A major deletion in the mitochondrial genome is transmitted with MSC phenotype of cucumber. Curr. Genet. 40:144-151.

42. McCallum, J., D. Leite, M. Pither-Joyce, and M.J. Havey. 2001. Expressed sequence markers for genetic analysis of bulb onion (*Allium cepa).* Theor. Appl. Genet. 103:979-991.

43. Kuhl, J.C., M.J. Havey, and R.E. Hanneman, Jr. 2002. A genetic study of unilateral incompatibility between diploid (1EBN) Mexican species *Solanum pinnatisectum* and *S. cardiophyllum* subsp. *cardiophyllum*. Sexual Plant Reprod. 14:305-313.

44. Gökçe, A.F., J. McCallum, Y. Sato, and M.J. Havey. 2002. Molecular tagging of the *Ms* locus in onion. J. Amer. Soc. Hort. Sci. 127:576-582.

45. Peterka, H., H. Budahn, O. Schrader, and M.J. Havey. 2002. Transfer of a male-sterility-inducing cytoplasm from onion to leek (*Allium ampeloprasum*). Theor. Appl. Genet. 105:173-181.

46. Havey, M.J., M. Cantwell, M.G. Jones, R.W. Jones, N.E. Schmidt, J. Uhlig, J.F. Watson, and K.S. Yoo. 2002. Significant variation exists among laboratories measuring onion bulb quality traits. HortScience 37:1086-1087.

47. Gökçe, A.F., and M.J. Havey. 2002. Linkage equilibrium among tightly linked RFLPs and the *Ms* locus in open-pollinated onion populations. J. Amer. Soc. Hort. Sci. 127:944-946.

48. Bohanec, B., M. Jakše, and M.J. Havey. 2003. Genetic analyses of gynogenetic haploid production in onion. J. Amer. Soc. Hort. Sci. 128:571-574.

49. Jakše, M., M.J. Havey, and B. Bohanec. 2003. Chromosome doubling procedures of onion (*Allium cepa* L.) gynogenic embryos. Plant Cell Rep. 21:905-913.

50. Kuhl, J.C., F. Cheung, Q. Yuan, W. Martin, Y. Zewdie, J. McCallum, A. Catanach, P. Rutherford, K.C. Sink, M. Jenderek, J.P. Prince, C.D. Town, and M.J. Havey. 2004. A unique set of 11,008 onion (*Allium cepa*) ESTs reveals expressed sequence and genomic differences between monocot orders Asparagales and Poales. Plant Cell 16:114-125.

51. Bartoszewski, G., S. Malepszy, and M.J. Havey. 2004. Mosaic (MSC) cucumbers regenerated from independent cell cultures possess different mitochondrial rearrangements. Curr. Genet. 45:45-53.

52. Bartoszewski, G., N. Katzir, and M.J. Havey. 2004. Organization of repetitive DNAs and the genomic regions carrying ribosomal RNA, *cob*, and *atp9* genes in the cucurbit mitochondrial genomes. Theor. Appl. Genet. 108:982-992.

53. Park, Y.H., and M.J. Havey. 2004. Cucumber germplasm resistant to *Cladosporium cucumerinum*. HortScience 39:163-164.

54. Havey, M.J., C.R. Galmarini, A.F. Gökçe, and C. Henson. 2004. QTL affecting soluble carbohydrate concentrations in stored onion bulbs and their association with flavor and health-enhancing attributes. Genome 47:463-468.

55. Park, Y.H., N. Katzir, Y. Brotman, J.J. King, F. Bertrand, and M.J. Havey. 2004. Comparative mapping of ZYMV resistances in cucumber (*Cucumis sativus* L.) and melon (*Cucumis melo* L.). Theor. Appl. Genet. 109:707-712.

56. Havey, M.J., Y.H. Park, and G. Bartoszewski. 2004. The *Psm* locus controls paternal sorting of the cucumber mitochondrial genome. J. Hered. 95:492-497.

57. Havey, M.J. 2005. Sequence analyses of probes revealing mapped RFLPs in cucumber. HortScience 40:323-324.

58. Zewdie, Y., M.J. Havey, J.P. Prince, and M.M. Jenderek. 2005. The first genetic linkages among expressed regions of the garlic (*Allium sativum* L.) genome. J. Amer. Soc. Hort. Sci. 130:569-574.

59. Bohanec, B., M. Jakše, and P. Šesek, and M.J. Havey. 2005. Genetic characterization of edible bulbous leek-like accessions and their genetic relationships with morphologically similar forms of *Allium* species. HortScience 40:1690-1694.

60. Martin, W., J. McCallum, M. Shigyo, J. Jakse, J.C. Kuhl, N. Yamane, K.C. Sink, C.D. Town, and M.J. Havey. 2005. Genetic mapping of expressed sequences in onion and *in silico* comparisons show scant colinearity with rice. Mol. Genet. Genomics 274:197-204.

61. Jakše, J., W. Martin, J. McCallum, and M.J. Havey. 2005. Single nucleotide polymorphisms, indels, and simple sequence repeats for onion cultivar identification. J. Amer. Soc. Hort. Sci. 130:912-917.

62. Kuhl, J.C., M.J. Havey, F. Cheung, Q. Yuan, J. Leebens-Mack, C.D. Town, and K.C. Sink. 2005. Comparative genomic analyses of the genus *Asparagus*. Genome 48:1052-1060.

63. McCallum, J., A. Clarke, M. Pither-Joyce, M. Shaw, R. Butler, D. Brash, J. Scheffer, I. Sims, S. van Heusden, M. Shigyo, and M.J. Havey. 2006. Genetic mapping of a major gene affecting onion bulb fructan content. Theor. Appl. Genet. 112:958-967.

64. Eid, S., Y. Abou-Jawdah, S. El-Mohtar, H. Sobh, and M.J. Havey. 2006. Tolerance in cucumber to *cucurbit yellow stunting disorder virus*. Plant Dis. 90:645-649.

65. Gökçe, A.F., and M.J. Havey. 2006. Selection at the *Ms* locus in open-pollinated onion populations possessing S cytoplasm or mixtures of N and S cytoplasms. Genet. Res. Crop Evol. 53:1495-1499.

66. Jakše, J., A. Telgmann, C. Jung, A. Khar, S. Melgar, F. Cheung, C.D. Town, and M.J. Havey. 2006. Comparative sequence and genetic analyses of asparagus BACs reveal no microsynteny with onion or rice. Theor. Appl. Genet. 114:31-39.

67. Bartoszewski, G., M.J. Havey, A. Ziółkowska, and S. Malepszy. 2007. The MSC phenotype of cucumber (*Cucumis sativus* L.) - a method for production of plant mitochondrial mutants. J. Appl. Genet. 48:1-9.

68. McCallum, J., M. Pither-Joyce, M. Shaw, F. Kenel, S. Davis, R. Butler, J. Scheffer, J. Jakse, and M.J. Havey. 2007. Genetic mapping of sulfur assimilation genes reveals a QTL for onion bulb pungency. Theor. Appl. Genet. 114:815–822.

69. Havey, M.J., and B. Bohanec. 2007. Onion inbred line 'B8667 A&B' and synthetic populations 'Sapporo-Ki-1 A&B' and 'Onion Haploid-1'. HortScience 42:1731-1732.

70. Khar, A., J. Jakše, and M.J. Havey. 2008. Segregations for onion-bulb colors reveal that red is controlled by at least three loci. J. Amer. Soc. Hort. Sci. 133:42-47.

71. Meyer, J.D., W. Deleu, J. Garcia-Mas, and M.J. Havey. 2008. Construction of a fosmid library of cucumber (*Cucumis sativus*) and comparative analyses of the eIF4E and eIF(iso)4E regions from cucumber and melon (*Cucumis melo*). Mol. Genet. Genomics 279:473–480.

72. Al-Faifi, S., J. Meyer, J. Garcia-Mas, A.J. Monforte, and M.J. Havey. 2008. Exploiting synteny in *Cucumis* for mapping of the cucumber *Psm* locus. Theor. Appl. Genet. 117:523–529.

73. Jakše, J., J.D.F. Meyer, G. Suzuki, J. McCallum, F. Cheung, C.D. Town, and M.J. Havey. 2008. Pilot sequencing of onion genomic DNA reveals fragmented transposable elements, low gene densities, and significant gene enrichment after methyl filtration. Mol. Genet. Genomics 280:287-292.

74. McCallum, J., S. Thomson, M. Pither-Joyce, F. Kenel, A. Clarke, and M.J. Havey. 2008. Genetic diversity analysis and single-nucleotide-polymorphism marker development in cultivated bulb onion based on expressed sequence tag–simple sequence repeat markers. J. Amer. Soc. Hort. Sci. 133:810–818.

75. Abou-Jawdah, Y., S.G. Eid, H.S. Atamian, Y. and M.J. Havey. 2008. Assessing the movement of *Cucurbit yellow stunting disorder virus* in susceptible and tolerant cucumber germplasms using serological and nucleic acid based methods. J. Phytopath. 156:438-445.

76. Bartoszewski, G., P. Gawronski, M. Szklarczyk, H. Verbakel, and M.J. Havey. 2009. A one-megabase physical map of the cucumber mitochondrial DNA reveals low density and occasional clustering of genes. Genome 52:299-307.

77. Mahajan, V., J. Jakse, M.J. Havey, and K.E. Lawande. 2009. Genetic fingerprinting of Indian onion cultivars using SSR markers. Indian J. Hort. 66:62-68.

78. Raines, S., C. Hensen, and M.J. Havey. 2009. Genetic analyses of soluble carbohydrate concentrations in onion bulbs. J. Amer. Soc. Hort. Sci. 134:618–623.

79. Ling, K. S., K.R. Harris, J.D.F. Meyer, A. Levi, N. Guner, T.C. Wehner, A. Bendahmane, and M.J. Havey. 2009. Non-synonymous single nucleotide polymorphisms in the watermelon eIF4 gene are closely associated with resistance to Zucchini yellow mosaic virus. Theor. Appl. Genet. 120:191-200.

80. Melgar, S., and M.J. Havey. 2010. The dominant *Ms* allele in onion shows reduced penetrance. J. Amer. Soc. Hort. Sci. 135:49-52.

81. Jakše, M., P. Hirschegger, B. Bohanec, and M.J. Havey. 2010. Evaluation of gynogenic responsiveness of selfed doubled haploid onion lines, chromosome doubling procedure via somatic regeneration, and male fertility. J. Amer. Soc. Hort. Sci. 135:67–73.

82. Kiełkowska, A., and M.J. Havey. 2011. In vitro flowering and pollen viability of cucumber. Plant Cell Tissue Organ Culture 109:73–82.

83. Howard, N., N. De Leon, M.J. Havey, and W. Martin. 2012. Diallel analysis of floral longevity in *Impatiens walleriana*. J. Amer. Soc. Hort. Sci 137:47-50.

84. Calderon, C., B. Yandell, and M.J. Havey. 2012. Genetic mapping of paternal sorting of mitochondria in cucumber. Theor. Appl. Genet. 125:11–18.

85. Yang, L., D. Koo, Y. Li, X. Zhang, F. Luan, M.J. Havey, J. Jiang, and Y. Weng. 2012. Chromosome rearrangements during domestication of cucumber as revealed from high-density genetic mapping and draft genome assembly. Plant Journal 71:895–906.

86. McManus, M., S. Joshi, B. Searle, M. Pither-Joyce, M. Shaw, S. Leung, N. Albert, M. Shigyo, J. Jakse, M.J. Havey, and J. McCallum. 2012. Genotypic variation in sulfur assimilation and metabolism of onion (*Allium cepa* L.) III. Characterization of sulfite reductase. Phytochemistry 83:34-42.

87. Havey, M.J. 2013. Single nucleotide polymorphisms in linkage disequilibrium with the male-fertility restoration (*Ms*) locus of onion. J. Amer. Soc. Hort. Sci. 138:306–309.

88. Duangjit, J., B. Bohanec, A.P. Chan, C.T. Town, and M.J. Havey. 2013. Transcriptome sequencing to produce SNP-based genetic maps of onion. Theor. Appl. Genet. 126:2093–2101.

89. Von Kohn, C., A. Kiełkowska, and M.J. Havey. 2013. Sequencing and annotation of the chloroplast DNAs of normal (N) male-fertile and male-sterile (S) cytoplasms of onion and single nucleotide polymorphisms distinguishing these cytoplasms. Genome 56:737–742.

90. Duangjit, J., K. Welsh, M. Wise, B. Bohanec, and M.J. Havey. 2014. Genetic analyses of anthocyanin concentrations and intensity of red-bulb color among segregating haploid progenies of onion. Mol. Breeding 34:75-85.

91. Damon, S., R. Groves, and M.J. Havey. 2014. Variation for epicuticular waxes on onion foliage and impacts on numbers of onion thrips. J. Amer. Soc. Hort. Sci. 139:495–501.

92. Boateng, C.O., H.F. Schwartz, M.J. Havey and K. Otto. 2014. Evaluation of onion germplasms for resistance to Iris yellow spot virus and/or onion thrips (*Thrips tabaci*). Southwestern Entomol. 39:237-260.

93. Damon, S., and M.J. Havey. 2014. Quantitative trait loci controlling amounts and types of epicuticular waxes in onion. J. Amer. Soc. Hort. Sci. 139:597-602.

94. Menda, N., S.R. Strickler, J.D. Edwards, A. Bombarely, D.M. Dunham, G.B. Martin, L. Mejia , S.F. Hutton, M.J. Havey, D.P. Maxwell, and L.A. Mueller. 2014. Analysis of wild species introgressions in tomato inbreds uncovers ancestral origins. BMC Plant Biology 4:287.

95. Bag, S., H.F. Schwartz, C.S. Cramer, M.J. Havey, and H.R. Pappu. 2015. Iris yellow spot virus (Tospovirus: Bunyaviridae): from obscurity to research priority. Molecular Plant Pathology 16:224–237.

96. Shen, J., R. Dirks, and M.J. Havey. 2015. Diallel crossing among doubled haploids of cucumber reveals significant reciprocal-cross differences. J. Amer. Soc. Hort. Sci. 140:178–182.

97. Mróz, T., M.J. Havey, and G. Bartoszewski. 2015. Cucumber possesses a single terminal alternative oxidase gene that is upregulated by stress and in the MSC mitochondrial mutants. Plant Mol. Biol. Rep. (accepted April 2015).

98. Del Valle-Echevarria, A., A. Kiełkowska, G. Bartoszewski, and M.J. Havey. 2015. The mosaic (MSC) mutants of cucumber: a method to produce knock-downs of mitochondrial transcripts. G3 (Genes, Genomes, Genetics) (accepted April 2015).

99. Romanov, D., M. Divashuk, M.J. Havey, and L. Khrustaleva. 2015. Tyramide-FISH mapping of single genes for development of an integrated recombination and cytogenetic map of chromosome 5 of *Allium cepa* L. Genome (accepted April 2015).

Germplasm and Inbred Releases

1. Havey, M.J., J.A.G. Irwin, and D.P. Maxwell. 1989. Registration of WAPRS-4 alfalfa germplasm resistant to Phytophthora root rot. Crop Sci. 29:833.

2. Havey, M.J. 1999. Release of onion inbred lines B1717A&B, B1828A&B, and B2354A&B. USDA, Beltsville MD, and University of Wisconsin Agricultural Experiment Station.

3. Havey, M.J. 1999. Release of galanthum-cytoplasmic male-sterile onion populations. USDA, Beltsville MD, and University of Wisconsin Agricultural Experiment Station.

4. Havey, M.J. 2007. Release of red onion inbred line B8667A&B. USDA, Beltsville MD.

5. Havey, M.J., and B. Bohanec. 2007. Release of onion synthetic population OH-1 with high frequency of gynogenic haploid production. USDA Beltsville MD and University of Ljubljana Slovenia.

6. Havey, M.J. 2007. Release of onion synthetic population SKI-1 A&B. USDA Beltsville MD.